

U.S. Department of Labor

Occupational Safety and Health Administration
1995 North Park Place
Suite 525
Atlanta, GA 30339
Phone: 678-903-7301 Fax: 770-984-8855



Citation and Notification of Penalty

To:

Georgia Power Company
and its successors
317 Covered Bridge Rd. SW
Plant Bowen
Cartersville, GA 30120

Inspection Number: 1102415

Inspection Date(s): 10/27/2015 - 04/18/2016

Issuance Date: 04/26/2016

Inspection Site:

317 Covered Bridge Rd. SW
Plant Bowen
Cartersville, GA 30120

The violation(s) described in this Citation and Notification of Penalty is (are) alleged to have occurred on or about the day(s) the inspection was made unless otherwise indicated within the description given below.

This Citation and Notification of Penalty (this Citation) describes violations of the Occupational Safety and Health Act of 1970. The penalty(ies) listed herein is (are) based on these violations. You must abate the violations referred to in this Citation by the dates listed and pay the penalties proposed, unless within 15 working days (excluding weekends and Federal holidays) from your receipt of this Citation and Notification of Penalty **you either call to schedule an informal conference (see paragraph below) or** you mail a notice of contest to the U.S. Department of Labor Area Office at the address shown above. Please refer to the enclosed booklet (OSHA 3000) which outlines your rights and responsibilities and which should be read in conjunction with this form. Issuance of this Citation does not constitute a finding that a violation of the Act has occurred unless there is a failure to contest as provided for in the Act or, if contested, unless this Citation is affirmed by the Review Commission or a court.

Posting - The law requires that a copy of this Citation and Notification of Penalty be posted immediately in a prominent place at or near the location of the violation(s) cited herein, or, if it is not practicable because of the nature of the employer's operations, where it will be readily observable by all affected employees. This Citation must remain posted until the violation(s) cited herein has (have) been abated, or for 3 working days (excluding weekends and Federal holidays), whichever is longer.

Informal Conference - An informal conference is not required. However, if you wish to have such a conference you may request one with the **Assistant Area Director Steven Washington** during the 15 working day contest period. During such an informal conference you may present any evidence or views which you

believe would support an adjustment to the citation(s) and/or penalty(ies).

If you are considering a request for an informal conference to discuss any issues related to this Citation and Notification of Penalty, you must take care to schedule it early enough to allow time to contest after the informal conference, should you decide to do so. Please keep in mind that a written letter of intent to contest must be submitted to the Area Director within 15 working days of your receipt of this Citation. The running of this contest period is not interrupted by an informal conference.

If you decide to request an informal conference, please complete, remove and post the Notice to Employees next to this Citation and Notification of Penalty as soon as the time, date, and place of the informal conference have been determined. Be sure to bring to the conference any and all supporting documentation of existing conditions as well as any abatement steps taken thus far. If conditions warrant, we can enter into an informal settlement agreement which amicably resolves this matter without litigation or contest.

Right to Contest – You have the right to contest this Citation and Notification of Penalty. You may contest all citation items or only individual items. You may also contest proposed penalties and/or abatement dates without contesting the underlying violations. **Unless you inform the Area Director in writing that you intend to contest the citation(s) and/or proposed penalty(ies) within 15 working days after receipt, the citation(s) and the proposed penalty(ies) will become a final order of the Occupational Safety and Health Review Commission and may not be reviewed by any court or agency.**

Penalty Payment – Penalties are due within 15 working days of receipt of this notification unless contested. (See the enclosed booklet and the additional information provided related to the Debt Collection Act of 1982.) Make your check or money order payable to "DOL-OSHA". Please indicate the Inspection Number on the remittance. You can also make your payment electronically on www.pay.gov. On the left side of the pay.gov homepage, you will see an option to Search Public Forms. Type "OSHA" and click Go. From the results, click on **OSHA Penalty Payment Form**. The direct link is:

<https://www.pay.gov/paygov/forms/formInstance.html?agencyFormId=53090334>.

You will be required to enter your inspection number when making the payment. Payments can be made by credit card or Automated Clearing House (ACH) using your banking information. Payments of \$25,000 or more require a Transaction ID, and also must be paid using ACH. If you require a Transaction ID, please contact the OSHA Debt Collection Team at (202) 693-2170.

OSHA does not agree to any restrictions or conditions or endorsements put on any check, money order, or electronic payment for less than the full amount due, and will process the payments as if these restrictions or conditions do not exist.

Notification of Corrective Action – For each violation which you do not contest, you must provide *abatement certification* to the Area Director of the OSHA office issuing the citation and identified above. This abatement certification is to be provided by letter within 10 calendar days after each abatement date. Abatement certification includes the date and method of abatement. If the citation indicates that the violation was corrected during the inspection, no abatement certification is required for that item. The abatement certification letter must be posted at the location where the violation appeared and the corrective action took place or employees must otherwise be effectively informed about abatement activities. A sample abatement certification letter is enclosed with this Citation. In addition, where the citation indicates that *abatement documentation* is necessary, evidence of the purchase or repair of equipment, photographs or video, receipts, training records, etc., verifying that abatement has occurred is required to be provided to the Area Director.

Employer Discrimination Unlawful – The law prohibits discrimination by an employer against an employee for filing a complaint or for exercising any rights under this Act. An employee who believes that he/she has been discriminated against may file a complaint no later than 30 days after the discrimination occurred with the U.S. Department of Labor Area Office at the address shown above.

Employer Rights and Responsibilities – The enclosed booklet (OSHA 3000) outlines additional employer rights and responsibilities and should be read in conjunction with this notification.

Notice to Employees – The law gives an employee or his/her representative the opportunity to object to any abatement date set for a violation if he/she believes the date to be unreasonable. The contest must be mailed to the U.S. Department of Labor Area Office at the address shown above and postmarked within 15 working days (excluding weekends and Federal holidays) of the receipt by the employer of this Citation and Notification of Penalty.

Inspection Activity Data – You should be aware that OSHA publishes information on its inspection and citation activity on the Internet under the provisions of the Electronic Freedom of Information Act. The information related to these alleged violations will be posted when our system indicates that you have received this citation. You are encouraged to review the information concerning your establishment at www.osha.gov. If you have any dispute with the accuracy of the information displayed, please contact this office.



NOTICE TO EMPLOYEES OF INFORMAL CONFERENCE

An informal conference has been scheduled with OSHA to discuss the citation(s) issued on 04/26/2016. The conference will be held by telephone or at the OSHA office located at 1995 North Park Place, Suite 525, Atlanta, GA 30339 on _____ at _____.

Employees and/or representatives of employees have a right to attend an informal conference.

CERTIFICATION OF CORRECTIVE ACTION WORKSHEET

Company Name: Georgia Power Company

Inspection Number: 1102415

Inspection Site: 317 Covered Bridge Rd. SW, Plant Bowen, Cartersville, GA 30120

Issuance Date: 04/26/2016

List the specific method of correction for each item on this citation in this package that does not read "Corrected During Inspection" and return to: **U.S. Department of Labor – Occupational Safety and Health Administration, 1995 North Park Place, Suite 525, Atlanta, GA 30339**

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

I certify that the information contained in this document is accurate and that the affected employees and their representatives have been informed of the abatement.

Signature

Date

Typed or Printed Name

Title

NOTE: 29 USC 666(g) whoever knowingly makes any false statements, representation or certification in any application, record, plan or other documents filed or required to be maintained pursuant to the Act shall, upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment of not more than 6 months or both.

POSTING: A copy of completed Corrective Action Worksheet should be posted for employee review

U.S. Department of Labor
Occupational Safety and Health Administration

Inspection Number: 1102415
Inspection Date(s): 10/27/2015 - 04/18/2016
Issuance Date: 04/26/2016



Citation and Notification of Penalty

Company Name: Georgia Power Company

Inspection Site: 317 Covered Bridge Rd. SW, Plant Bowen, Cartersville, GA 30120

The alleged violations below have been grouped because they involve similar or related hazards that may increase the potential for injury or illness.

Citation 1 Item 1 a Type of Violation: **Serious**

29 CFR 1910.269(a)(3)(iii): The contract employer and the host employer did not coordinate their work rules and procedures so that each employee of the contract employer and the host employer is protected as required by this section.

a. JBR 3/4 Building - The Georgia Power Company and ABB, Inc. Company did not coordinate their work rules and procedures so that both Georgia Power Company and ABB, Inc. personnel were protected from shock and arc blast/flash hazards while performing circuit buss modification in Frame Cabinets 1, 1A and 7.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:

06/13/2016

Proposed Penalty:

\$7000.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

U.S. Department of Labor
Occupational Safety and Health Administration

Inspection Number: 1102415
Inspection Date(s): 10/27/2015 - 04/18/2016
Issuance Date: 04/26/2016



Citation and Notification of Penalty

Company Name: Georgia Power Company

Inspection Site: 317 Covered Bridge Rd. SW, Plant Bowen, Cartersville, GA 30120

Citation 1 Item 1 b Type of Violation: **Serious**

29 CFR 1910.269(d)(8)(iv): Whenever outside servicing personnel are to be engaged in activities covered by paragraph (d) of this section, the on-site employer and the outside employer shall inform each other of their respective lockout or tagout procedures, and each employer shall ensure that his or her personnel understand and comply with restrictions and prohibitions of the energy control procedures being used.

a. Plant Bowen, JBR 3/4 Building - Prior to performing electrical circuit modification work using Georgia Power Company clearance procedures, Georgia Power Company and ABB, Inc. did not inform each others employee representatives of their respective lockout or tagout program, procedures and policies to ensure each employee understood and complied with the restrictions and prohibitions of the energy control procedures being used.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:

06/13/2016

U.S. Department of Labor
Occupational Safety and Health Administration

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Issuance Date: 04/26/2016



Citation and Notification of Penalty

Company Name: Georgia Power Company

Inspection Site: 317 Covered Bridge Rd. SW, Plant Bowen, Cartersville, GA 30120

The alleged violations below have been grouped because they involve similar or related hazards that may increase the potential for injury or illness.

Citation 1 Item 2 a Type of Violation: **Serious**

29 CFR 1910.269(d)(2)(iii): Procedures shall be developed, documented, and used for the control of potentially hazardous energy covered by paragraph (d) of this section.

a. Plant Bowen, JBR 3/4 Building, Buss B - The Georgia Power clearance procedure used to isolate Frames 1 and 1A did not isolate all sources of power thereby exposing employees and subcontractors to the hazard of arc flash/blast and shock.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:
Proposed Penalty:

06/13/2016
\$7000.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

U.S. Department of Labor

Occupational Safety and Health Administration

Inspection Number: 1102415

Inspection Date(s): 10/27/2015 - 04/18/2016

Issuance Date: 04/26/2016



Citation and Notification of Penalty

Company Name: Georgia Power Company

Inspection Site: 317 Covered Bridge Rd. SW, Plant Bowen, Cartersville, GA 30120

Citation 1 Item 2 b Type of Violation: **Serious**

29 CFR 1910.269(d)(2)(iv)(D): Specific requirements for testing a machine or equipment to determine and verify the effectiveness of lockout devices, tagout devices, and other energy control measures.

a. Plant Bowen, JBR 3/4 Building, Buss B - The tagout procedure used to isolate Frames 1 and 1A and render the equipment safe, did not include specific techniques and methods necessary for checking and verifying the absence of voltage on the equipment and for the hanging of temporary protective grounding cables.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:

06/13/2016

U.S. Department of Labor
Occupational Safety and Health Administration

Inspection Number: 1102415
Inspection Date(s): 10/27/2015 - 04/18/2016
Issuance Date: 04/26/2016



Citation and Notification of Penalty

Company Name: Georgia Power Company

Inspection Site: 317 Covered Bridge Rd. SW, Plant Bowen, Cartersville, GA 30120

Citation 1 Item 3 Type of Violation: **Serious**

29 CFR 1910.269(d)(2)(ii)(B)(2): In demonstrating that a level of safety is achieved in the tagout program equivalent to the level of safety obtained by the use of a lockout program, the employer shall demonstrate full compliance with all tagout-related provisions of this standard together with such additional elements as are necessary to provide the equivalent safety available from the use of a lockout device. Additional means to be considered as part of the demonstration of full employee protection shall include the implementation of additional safety measures such as the removal of an isolating circuit element, blocking of a controlling switch, opening of an extra disconnecting device, or the removal of a valve handle to reduce the likelihood of inadvertent energizing.

a. Plant Bowen, JBR 3/4 Building - The Georgia Power Company does not have a tagout program which demonstrated a level of safety equivalent to that of a lockout program in that the written clearance procedure did not contain additional steps necessary for demonstrating equivalency such as the additional safety measure of removing an additional isolating circuit element or the opening of an additional disconnecting device.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:

06/13/2016

Proposed Penalty:

\$7000.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

U.S. Department of Labor
Occupational Safety and Health Administration

Inspection Number: 1102415
Inspection Date(s): 10/27/2015 - 04/18/2016
Issuance Date: 04/26/2016



Citation and Notification of Penalty

Company Name: Georgia Power Company

Inspection Site: 317 Covered Bridge Rd. SW, Plant Bowen, Cartersville, GA 30120

The alleged violations below have been grouped because they involve similar or related hazards that may increase the potential for injury or illness.

Citation 1 Item 4 a Type of Violation: **Serious**

29 CFR 1910.269(d)(8)(ii): When servicing or maintenance is performed by a crew, craft, department, or other group, they shall use a procedure which affords the employees a level of protection equivalent to that provided by the implementation of a personal lockout or tagout device. Group lockout or tagout devices shall be used in accordance with the procedures required by paragraphs (d)(2)(iii) and (d)(2)(iv) of this section including, but not limited to, the following specific requirements:

a. Plant Bowen, JBR 3/4 Building - The contractors crew members who worked on the buss bar and in the switchgear did not have a procedure which afforded each exposed employee with a level of protection from shock and arc flash/blast hazards equivalent to that of a personal lock.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:

06/13/2016

Proposed Penalty:

\$7000.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

U.S. Department of Labor
Occupational Safety and Health Administration

Inspection Number: 1102415
Inspection Date(s): 10/27/2015 - 04/18/2016
Issuance Date: 04/26/2016



Citation and Notification of Penalty

Company Name: Georgia Power Company

Inspection Site: 317 Covered Bridge Rd. SW, Plant Bowen, Cartersville, GA 30120

Citation 1 Item 4 b Type of Violation: **Serious**

29 CFR 1910.269(d)(8)(ii)(B): Provision shall be made for the authorized employee to ascertain the exposure status of all individual group members with regard to the lockout or tagout of the machine or equipment;

a. Plant Bowen, JBR 3/4 Building - The controlling employers tagout (clearance) procedure did not provide a provision to ensure that the contract primary authorized employee was provided an opportunity to review and inspect all energy isolating point, in that the contract authorized employee was not allowed to view and verify low voltage energy source isolation points.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:

06/13/2016

U.S. Department of Labor
Occupational Safety and Health Administration

Inspection Number: 1102415
Inspection Date(s): 10/27/2015 - 04/18/2016
Issuance Date: 04/26/2016



Citation and Notification of Penalty

Company Name: Georgia Power Company
Inspection Site: 317 Covered Bridge Rd. SW, Plant Bowen, Cartersville, GA 30120

Citation 1 Item 5 Type of Violation: **Serious**

29 CFR 1910.269(n)(6)(i): The employer shall ensure that, when an employee attaches a ground to a line or to equipment, the employee attaches the ground-end connection first and then attaches the other end by means of a live-line tool. For lines or equipment operating at 600 volts or less, the employer may permit the employee to use insulating equipment other than a live-line tool if the employer ensures that the line or equipment is not energized at the time the ground is connected or if the employer can demonstrate that each employee is protected from hazards that may develop if the line or equipment is energized.

a. Plant Bowen, JBR 3/4 Building - The employer did not ensure that when an employee attached a personal protective grounding cable to previously energized equipment, such as the buss bar and switchgear, a live-line tool or equivalent PPE was used in lieu of installation by hand.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:	06/13/2016
Proposed Penalty:	\$7000.00

U.S. Department of Labor
Occupational Safety and Health Administration

Inspection Number: 1102415
Inspection Date(s): 10/27/2015 - 04/18/2016
Issuance Date: 04/26/2016



Citation and Notification of Penalty

Company Name: Georgia Power Company
Inspection Site: 317 Covered Bridge Rd. SW, Plant Bowen, Cartersville, GA 30120

Citation 2 Item 1 Type of Violation: **Repeat**

29 CFR 1910.269(d)(2)(iv)(B): Specific procedural steps for shutting down, isolating, blocking and securing machines or equipment to control hazardous energy;

a. Plant Bowen, JBR 3/4 Building, Bus B - The employer did not develop and issue a specific clearance (tagout procedure) which included specific procedural steps necessary for the hanging of temporary protective grounds in Frame #7

Georgia Power Company was previously cited for a violation of this Occupational Safety and Health Standard 29 CFR 1910.268(d)(2)(iv)(B), which was contained in OSHA Inspection Number 900009, Citation Number 1, Item Number 6b and was affirmed as a final order on December 5, 2014, with respect to a workplace located at Plant Bowen, 317 Covered Bridge Rd SW, Cartersville GA 30120.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:	06/13/2016
Proposed Penalty:	\$38500.00

U.S. Department of Labor
Occupational Safety and Health Administration

Inspection Number: 1102415
Inspection Date(s): 10/27/2015 - 04/18/2016
Issuance Date: 04/26/2016



Citation and Notification of Penalty

Company Name: Georgia Power Company

Inspection Site: 317 Covered Bridge Rd. SW, Plant Bowen, Cartersville, GA 30120

Citation 2 Item 2 Type of Violation: **Repeat**

29 CFR 1910.269(d)(6)(vii): Before starting work on machines or equipment that have been locked out or tagged out, the authorized employee shall verify that isolation and deenergizing of the machine or equipment have been accomplished. If normally energized parts will be exposed to contact by an employee while the machine or equipment is deenergized, a test shall be performed to ensure that these parts are deenergized.

a. Plant Bowen, JBR 3/4 Building, Buss B - Prior to starting work the Georgia Power authorized employee(s) did not verify the absence of voltage, using a test instrument, on the equipment or circuits located in the switchgear cabinet for Bus B.

Georgia Power Company was previously cited for a violation of this Occupational Safety and Health Standard 29 CFR 1910.268(d)(6)(vii), which was contained in OSHA Inspection Number 900009, Citation Number 1, Item Number 14b and was affirmed as a final order on December 5, 2014, with respect to a workplace located at Plant Bowen, 317 Covered Bridge Rd SW, Cartersville GA 30120.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:

06/13/2016

Proposed Penalty:

\$38500.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

U.S. Department of Labor
Occupational Safety and Health Administration

Inspection Number: 1102415
Inspection Date(s): 10/27/2015 - 04/18/2016
Issuance Date: 04/26/2016



Citation and Notification of Penalty

Company Name: Georgia Power Company

Inspection Site: 317 Covered Bridge Rd. SW, Plant Bowen, Cartersville, GA 30120

Citation 3 Item 1 Type of Violation: **Other-than-Serious**

29 CFR 1910.269(d)(2)(ii)(C): After November 1, 1994, whenever replacement or major repair, renovation, or modification of a machine or equipment is performed, and whenever new machines or equipment are installed, energy isolating devices for such machines or equipment shall be designed to accept a lockout device.

a. Plant Bowen, JBR 3/4 Building Bus B - The employer used tagout to identify energy source isolation at the point where a lockout device should have been used to control potentially hazardous energy points on electrical equipment manufactured and installed in 2005-2006 that was not capable of being locked out.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:

06/13/2016

Proposed Penalty:

\$0.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

U.S. Department of Labor
Occupational Safety and Health Administration

Inspection Number: 1102415
Inspection Date(s): 10/27/2015 - 04/18/2016
Issuance Date: 04/26/2016



Citation and Notification of Penalty

Company Name: Georgia Power Company
Inspection Site: 317 Covered Bridge Rd. SW, Plant Bowen, Cartersville, GA 30120

Citation 3 Item 2 Type of Violation: **Other-than-Serious**

29 CFR 1910.269(d)(8)(iii): Procedures shall be used during shift or personnel changes to ensure the continuity of lockout or tagout protection, including provision for the orderly transfer of lockout or tagout device protection between off-going and on-coming employees, to minimize their exposure to hazards from the unexpected energizing or start-up of the machine or equipment or from the release of stored energy.

a. Plant Bowen, JBR 3/4 Building - The company did not utilize a personnel change procedure to remove Mike Moore from controlling the department tagout/clearance for the procedure numbered and titled 4-09-10-20-02, 4160V Limestone Bus D Alternate Feeder 648444 after he left the company in May 2014.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:
Proposed Penalty:

06/13/2016
\$0.00

Keith Hass
Don

Christi Griffin
Area Director

U.S. Department of Labor
Occupational Safety and Health Administration
1995 North Park Place
Suite 525
Atlanta, GA 30339
Phone: 678-903-7301 Fax: 770-984-8855



INVOICE / DEBT COLLECTION NOTICE

Company Name: Georgia Power Company
Inspection Site: 317 Covered Bridge Rd. SW, Plant Bowen, Cartersville, GA 30120
Issuance Date: 04/26/2016

Summary of Penalties for Inspection Number	1102415
Citation 1, Serious	\$35000.00
Citation 2, Repeat	\$77000.00
Citation 3, Other-than-Serious	\$0.00
TOTAL PROPOSED PENALTIES	\$112000.00

To avoid additional charges, please remit payment promptly to this Area Office for the total amount of the uncontested penalties summarized above. Make your check or money order payable to: "DOL-OSHA". Please indicate OSHA's Inspection Number (indicated above) on the remittance. You can also make your payment electronically on www.pay.gov. On the left side of the pay.gov homepage, you will see an option to Search Public Forms. Type "OSHA" and click Go. From the results, click on **OSHA Penalty Payment Form**. The direct link is <https://www.pay.gov/paygov/forms/formInstance.html?agencyFormId=53090334>. You will be required to enter your inspection number when making the payment. Payments can be made by credit card or Automated Clearing House (ACH) using your banking information. Payments of \$25,000 or more require a Transaction ID, and also must be paid using ACH. If you require a Transaction ID, please contact the OSHA Debt Collection Team at (202) 693-2170.

OSHA does not agree to any restrictions or conditions or endorsements put on any check, money order, or electronic payment for less than the full amount due, and will cash the check or money order as if these restrictions or conditions do not exist.

If a personal check is issued, it will be converted into an electronic fund transfer (EFT). This means that our bank will copy your check and use the account information on it to electronically debit your account for the amount of the check. The debit from your account will then usually occur within 24 hours and will be shown on your regular account statement. You will not receive your original check back. The bank will destroy your

original check, but will keep a copy of it. If the EFT cannot be completed because of insufficient funds or closed account, the bank will attempt to make the transfer up to 2 times.

Pursuant to the Debt Collection Act of 1982 (Public Law 97-365) and regulations of the U.S. Department of Labor (29 CFR Part 20), the Occupational Safety and Health Administration is required to assess interest, delinquent charges, and administrative costs for the collection of delinquent penalty debts for violations of the Occupational Safety and Health Act.

Interest: Interest charges will be assessed at an annual rate determined by the Secretary of the Treasury on all penalty debt amounts not paid within one month (30 calendar days) of the date on which the debt amount becomes due and payable (penalty due date). The current interest rate is one percent (1%). Interest will accrue from the date on which the penalty amounts (as proposed or adjusted) become a final order of the Occupational Safety and Health Review Commission (that is, 15 working days from your receipt of the Citation and Notification of Penalty), unless you file a notice of contest. Interest charges will be waived if the full amount owed is paid within 30 calendar days of the final order.

Delinquent Charges: A debt is considered delinquent if it has not been paid within one month (30 calendar days) of the penalty due date or if a satisfactory payment arrangement has not been made. If the debt remains delinquent for more than 90 calendar days, a delinquent charge of six percent (6%) per annum will be assessed accruing from the date that the debt became delinquent.

Administrative Costs: Agencies of the Department of Labor are required to assess additional charges for the recovery of delinquent debts. These additional charges are administrative costs incurred by the Agency in its attempt to collect an unpaid debt. Administrative costs will be assessed for demand letters sent in an attempt to collect the unpaid debt.

Keith Hays
for

Christi Griffin
Area Director

4/26/16

Date

Please Contact AAD Steven Washington to Schedule an Informal Conference at 678-903-7325.

**Este documento es muy importante. Si ud. No habla inglés,
busque un traductor o llame al (678) 903-7301.**

U.S. Department of Labor Occupational Safety and Health Administration
1995 North Park Place Suite 525
Atlanta, GA 30339
Phone: (678) 903-7301 Fax: (770) 984-8855



April 26, 2016

Dear Mr. Johnson,

On 10/27/2015, an OSHA compliance officer met with you or your representative as part of an inspection at 317 Covered Bridge Rd. SW, Plant Bowen Cartersville, GA 30120. This letter includes the citations for the violations that were found (see summary below). Please choose one of the three options from the box to the right and complete the associated steps found on the following page **within 15 working days**. Please call us if you have any questions about the enclosed citation and/or penalties; we are here to help you choose the best option to resolve your citation as quickly as possible.

Sincerely,

Christi Griffin, Area Director

Your Citation Summary
Georgia Power Company
Inspection Number: 1102415

Total Amount Due: \$112000.00
Payment Due Date: 15 working days
after receipt of
this letter

You must correct each violation by the date listed in the Citation and Notification of Penalty. Please see the violations and the correction deadline for each violation starting on page 6.

Total Number of Violations : 12

Your First Correction Deadline is:
06/13/2016

Step 1 – Choose a Response
Option and
Act within 15 working days

Respond now before you lose the ability to discuss potential adjustments to penalty amounts and/or due dates. Please choose one option below and complete the steps on the next page.

Option #1 – Discuss with OSHA

I would like to discuss the citation with an OSHA representative. This may lead to changes in the penalty amount, due date or correction deadlines (if appropriate).

Option #2 – Correct and Pay

I agree with the citation, penalties, and correction deadlines, and do not contest.

Option #3 – Contest the Citation

I do not agree with the citation, penalties, and/or correction deadlines, and would like to contest.

Questions or Concerns?

If you have any questions or concerns regarding the citation, penalties, and/or correction deadlines, please call us at (678) 903-7301.

Step 2 – Complete One Option Checklist

Please post a copy of the citation at or near the place where each violation occurred, even if you plan to contest. You can use the checklist to the right to help plan your next steps. Please do not send in your checklist.

Option #1 – Discuss with OSHA

I will complete by:



1. Call: **Steven Washington, Assistant Area Director, at (678) 903-7325** as soon as possible to schedule a meeting with an OSHA representative that must occur **within 15 working days** of receiving this citation. Bring supporting documentation of existing conditions and corrections done thus far. If necessary, you can still contest the citation after this meeting. ****This meeting does NOT extend your 15 working day deadline to contest the citation.****

☐ ____ / ____



2. Fill in and post the attached "Notice to Employees OSHA Informal Conference" after scheduling meeting.

☐ ____ / ____

Option #2 – Correct Violations and Pay Penalty

I will complete by:



1. Correct violations, then complete and mail the attached "Certification of Corrective Action Worksheet" along with the appropriate evidence of repair (e.g. photos, purchase orders, etc.) to the OSHA office listed on the first page, **postmarked within 10 calendar days after each violation's correction deadline and include any required evidence. If these documents are transmitted by means other than mailing, the date the Agency received the documents is the date of submission.**

☐ ____ / ____



2. Pay the **Total Penalty** by using one of the following methods:
****Include your Inspection Number (see first page) on the payment.****

☐ ____ / ____

Pay Online: Search "OSHA" on www.pay.gov and complete the "OSHA Penalty Payment Form." Pay by debit, credit or Automated Clearing House (ACH) **within 15 working days**. Penalties over \$25,000 must be paid by ACH and require a Transaction ID (Call 202-693-2170 to obtain one).

Pay by Check: Mail check or money order payable to "DOL-OSHA" for the Total Penalty to the OSHA office listed on the first page **within 15 working days**.

Option #3 – Contest the Citation

I will complete by:



Mail a letter of intent to legally contest to the OSHA office listed on the first page, postmarked **within 15 working days**.

☐ ____ / ____

U.S. Department of Labor - Occupational Safety and Health Administration

Inspection Report

Tue Apr 19, 2016 07:22:44 AM

RID	CSHO ID	Supervisor ID	Inspection Number	Optional Report Number	Case Closed Date
0418200	(b) (7)(C)	A2045	1102415		

Establishment Name		Georgia Power Company		Doing Business As (DBA)			
Establishment Owner Name	Private Sector	Type of Business	Corporation	Primary NAICS			221112
Site Address	317 Covered Bridge Rd. SW Plant Bowen CARTERSVILLE, GA, 30120	Site Phone	(770)-606-6217	Extn		Site FAX	
Business Address	317 Covered Bridge Rd. SW Plant Bowen CARTERSVILLE, GA, 30120	Business Phone	(770)-606-6217			Business FAX	
Mailing Address	317 Covered Bridge Rd. SW Plant Bowen CARTERSVILLE, GA, 30120	E-mail				Mobile Phone	
Site Activity	Electrical Generation	NAICS Inspected	221112			Days on Site	6
Federal EIN	(b) (4)	DUNs	006924989	Temporary or Fixed Site?		Fixed Site	
State Estab Id	J716605	DUNS plus4		CAGE Code			

Entry	27-OCT-2015	01:30 PM	First Closing Conference	18-APR-2016	09:00 AM
Opening Conference	27-OCT-2015	02:30 PM	Second Closing Conference		
Walkaround	28-OCT-2015	01:45 PM	Exit		

Inspection Initiating Type	Referral		Secondary Type		
Other Initiating Type			Inspection Category		Safety
Scope of Inspection	Partial		Reason No Inspection		
Sampling Performed?	N	SVEP	N	Expln. for No Insp.	
Federal Strategic Initiatives					
National Emphasis					
Local Emphasis					
Primary Emphasis					

Employed in Establishment	2000	Walkaround?	Y	Advance Notice?	N
Covered By Inspection	25	Interviewed?	Y	Flag for Follow-up	N
Controlled By Employer	2000	Union?	Y	Reason for Follow-up	
Is this Company a current federal contractor?	N	Attempt made to capture Exec Order Info?			Y

Parent Company Legal Name	Southern Company	Parent Comp Trade Name/DBA	
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Parent Company Address	241 Ralph McGill Boulevard NE ATLANTA, GA, 30310	Phone Number		Extn	
TIN / EIN		DUNS			
CAGE Code		DUNS plus4			

Related Activity			
Activity Number	Activity Type	Satisfied	Establishment Name
1032779	Referral	Safety	Georgia Power

Related Inspections		
Inspection Number	Establishment Name	Related Inspection Type
1102425	ABB, Inc.	MULTI-EMPLOYER

Additional Codes			
Type	ID	Value	Description

Employer Representatives Contacted							
Name	Kevin Johnson	Job Title	Generation Health &	Occupation	Corporate Safety for Generation		
Address		(b) (7)(C)		Interviewed?	Y		
Home	(b) (7)(C)	Work		Mobile		Fax	
Email			Participation		Walk Around, Citation Mailed, Credentials, Closing Conference, Opening Conference		
Name	Suzanne Smith	Job Title	Safety & Health Advi	Occupation	Safety & Health Specialist		
Address				Interviewed?	Y		
Home		Work		Mobile		Fax	
Email			Participation		Walk Around, Credentials, Closing Conference, Opening Conference		
Name	Brenda Sutherland	Job Title	Compliance & Support	Occupation	Manager		
Address				Interviewed?	N		
Home		Work		Mobile		Fax	
Email			Participation		Credentials, Opening Conference		
Name	Ralph Granger	Job Title	Maintenance	Occupation	Supervisor of Sub		

				Speciali			contractors
Address		(b) (7)(C)		Interviewed?		Y	
Home		Work		Mobile	(b) (7)(C)	Fax	
Email				Participation		Walk Around, Credentials	
Name	John Edwards	Job Title		Maintenance Team Lea	Occupation	Team leader	
Address		(b) (7)(C)		Interviewed?		Y	
Home	(b) (7)(C)	Work		Mobile		Fax	
Email				Participation		Credentials	
Name	Jeffrey McAllister	Job Title		Maintenance Team lea	Occupation	Team Leader	
Address				Interviewed?		Y	
Home		Work		Mobile		Fax	
Email				Participation		Credentials	

Employees Contacted							
Name	(b) (7)(C)	Job Title		(b) (7)(C)	Occupation		
Address		(b) (7)(C)		Interviewed?		Y	
Home		Work		Mobile	(b) (7)(C)	Fax	
Email				Participation		Credentials	
Name	(b) (7)(C)	Job Title		(b) (7)(C)	Occupation		
Address				Interviewed?		N	
Home		Work		Mobile		Fax	
Email				Participation			
Name	(b) (7)(C)	Job Title		(b) (7)(C)	Occupation		(b) (7)(C)
Address				Interviewed?		N	
Home		Work		Mobile		Fax	
Email				Participation		Walk Around, Credentials, Opening Conference	
Name	(b) (7)(C)	Job Title		(b) (7)(C)	Occupation		(b) (7)(C)
Address				Interviewed?		N	
Home		Work		Mobile		Fax	
Email				Participation			

Name	(b) (7)(C)	Job Title	(b) (7)(C)	Occupation	(b) (7)(C)
Address	(b) (7)(C)		Interviewed?	Y	
Home	(b) (7)(C)	Work		Mobile	
Email			Participation	Credentials	

Union Information					
Union Name	Internation Brotherhood of Electrical Workers		Local	84	
Rep Name	(b) (7)(C)		Job Title	Steward	
Occupation			Interviewed?	Y	
Address	(b) (7)(C)				
Home		Work	(b) (7)(C)	Mobile	
Email	(b) (7)(D)		Participation	Walk Around, Citation Mailed, Credentials, Closing Conference, Opening Conference	

Authorized Employee Representatives					
Name	(b) (7)(C)	Organization		Occupation	Shoip Steward / BTO
Address			Interviewed?	Y	
Home		Work		Mobile	
Email			Participation	Walk Around, Citation Mailed, Credentials, Closing Conference, Opening Conference	

Other Persons Contacted					
Name	Steve Creekmur	Role	ABB, Inc. Regional Manager	Relationship to Employer	Coordinated the work with Georgia Power/Former Georgia Power Employee
Address			Interviewed?	Y	
Home		Work	770-910-2078	Mobile	
Email			Participation	Walk Around	
Name	(b) (7)(C)	Role	(b) (7)(C)	Relationship to Employer	(b) (7)(C)
Address			Interviewed?	Y	
Home		Work		Mobile	

Email				Participation		Citation Mailed	
Name	Mark Ball	Role		ABB, Inc. Field Service HSE Manager	Relationship to Employer	ABB, Inc. Field Safety Rep	
Address				Interviewed?		Y	
Home		Work		Mobile		Fax	
Email				Participation		Walk Around, Citation Mailed	
Name	(b) (7)(C)	Role		(b) (7)(C)	Relationship to Employer	(b) (7)(C)	
Address		(b) (7)(C)		Interviewed?		Y	
Home		Work	(b) (7)(C)	Mobile		Fax	
Email				Participation		Citation Mailed	

Penalty Adjustment Factors					
Size Reduction	0%	Good Faith Reduction	0%	History Reduction	10% PENALTY INCREASE
Size Justification	System, set it to 0%	Good Faith Justification		History Justification	OSHA Inspection #900009, with 17 citations issued on 09/24/2013.

CSHO Signature		Date	
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SAFETY NARRATIVE

Inspection Number	1102415
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COVERAGE INFORMATION

Georgia Power is a company who delivers power as part of the Southern Company system throughout the Southern United States.

NATURE AND SCOPE

Check Applicable Boxes and Explain Findings:

- ☐ Complaint Items
- ☐ Referral Items
- ☒ Accident Investigation Summary & Findings
- ☐ LEP
- ☐ NEP
- ☐ Planned Inspection

Accident: The incident occurred in the JBR3/4 building cabinet which was part of a contiguous Buss labeled as Buss B. The work involved was the reconfiguration of the Buss bar in cabinets 1 and 1A. The blast occurred in Frame 5. As to the accident no one remembers what occurred directly before the accident and the injured worker who was in the frame does not recall why he was in in the cabinet/frame 5.

Important Personnel and their Involvement.

From Georgia Power:

*Ralph Granger - Maintenance Specialists, Sr. (Coordinated with the ABB Employees and Hung the Grounds) Performed the walk down and coordination with the outside contractors.
John Edwards - Team Leader - Maintenance
Jeff McAlister - Team Leader - Maintenance*

Hourly

(b) (7)(D)

From ABB:

Steve Creekmur, Manager - Had discussions with Ralph Granger concerning tagging and grounds. Supervisor for the two employees.

(b) (7)(C)

(b) (7)(C)

Equipment involved:

Metal-Clad Switchgear: No. G-749961 (Listed by ABB, Inc. Lake Mary, Florida 32746)
UL Listed # E-143324.

Serial Number 1VALCS01558B01
Max Volts 4.76
Main Buss Capacity 3500A
Peak withstand Current 130KA
Short-Time, Sym RMS 50KAA

The Original design date drawing indicates this was approved as installed on September 1, 2005. The materials indicate that the customer (Georgia Power) had a Purchase Order

(b) (4)

NOTE: Buss B regular power supply is through Frame 3, with Frame 5 as an alternate supply source.

One Line Diagram

The one-line diagram lists several sources or potential sources of power to the Busses. They are as follows:

Frame 1, Transformer 648456 @ 3,000 Amps
Frame 1A, Transformer 648444 @ 3,000 Amps
Frame 1B, Transformer 648828 @ 2,000 Amps
Frame 3, Transformer 648664 @ 3,000 Amps
Frame 3, Transformer 648236 @ 3,500 Amps
Frame 5, Transformer 648108 @ 3,500 Amps

The Tagout (Clearance) Procedure accounted for:

Procedure 4-15-10-26-02 accounted for the following Transformer feeds to Buss B

This procedure accounted for

Frame 1, Transformer 648456 @ 3,000 Amps
Frame 1A, Transformer 648444 @ 3,000 Amps
Frame 1B, Transformer 648828 @ 2,000 Amps
Frame 3, Transformer 648236 @ 3,500 Amps
Frame 5, Transformer 648108 @ 3,500 Amps

Procedure 4-15-10-26-03 accounted for the following transformer feed to Buss B

Frame 1A, Transformer 648664 @ 3,000 Amps

Not accounted for in clearance 4-15-10-26-02

Frame 3, Transformer 648664 @ 3,000 Amps which is the Normal Power to the Buss
Frame 5, Transformer 648108 @ 3,500 Amps, still powering the high side.

**** Important Information ****

1. Work occurred in Frames 1 and 1A.

2. The incident occurred in Frame 5.
3. Temporary Protective Grounds were hung in Frame 7.
4. During the walk down of the procedure power was still on in Frame 1A.

During the walk down the ABB employees found power still supplied to frame 1A. Obtained from 2 employees interviews on multiple days. The two ABB employees didn't know that it was still powered in Frame 5 on the high side.

NATURE AND SCOPE – UNUSUAL CIRCUMSTANCES (Mark X and explain all that apply)

- ☐ None
- ☐ Denial of entry (see denial memo)
- ☒ Delays in conducting the inspection
- ☐ Strikes
- ☐ Jurisdictional Issues
- ☐ Trade Secrets
- ☒ Other

Comments:

The issue here is the employer's relation to the hazard. In this instance the employer (Georgia Power) controls the site and the tagout process. Therefore, their employees are not exposed to the actual incident that occurred. However, their employees were exposed to the potential hazard when they hung the protective grounds.

They were executing control and abatement over the hazard.

Delays: The employer refused access to the physical location of the accident and insisted that the inspection be performed from the front guard shack on site. It wasn't until the CSHO packed up and considered it a refusal that access was granted to the worksite on the second day.

Events Leading up to the Incident:

Georgia Power contracted with ABB, Inc. to perform work in the Buss B of the JBR 3/4 Building. The work scope was for a weeks' worth of work to modify the Buss in frames 1 and 1A.

Originally the Buss B system cabinets and Buss was designed and fabricated by ABB, Inc. or its subdivisions back in September 2005 and constructed and installed after that date. This new modification called for the removal of the Buss Bars in cabinets 1 and 1A and replace them with new Buss Bars in a new configuration.

The workers had arrived at the site on day 10/26/2015: According to both (b) (7)(D) and (b) (7)(D) the employees had arrived at the site and had planned on being there 5 days. The interviews with the employees indicated that on Monday 10/26/2015 Both (b) (7)(D) had coordinated their work and tagout of the equipment with

Georgia Power. The person from Georgia Power, Ralph Granger (Maintenance Specialist/Subcontract Coordinator) gave them a one-line diagram and a sub clearance roster for tagout procedures (clearances) 4-15-10-26-02 and 4-15-10-26-03. The two ABB workers were not given access to the actual multistep clearance/tagout procedure. The Tagout Sub clearance 4-15-10-26-02, **IMPORTANT NOTE:** Supplemental roster for Equipment: 41690V JBR 3/4 Buss B. Plus, Supplemental Roster for Clearance/Tagout Procedure 4-15-10-26-03, **IMPORTANT NOTE** The roster was for Equipment: 4160V Limestone Buss D Normal Supply 648664.

During the walk down with Ralph (b) (7)(D) noted that one of the feeds to the cabinet (Frame 1A feed from Transformer 648444) was not tagged out. The tag was then placed by a Georgia Power personnel (most likely (b) (7)(D)) and Ralph wanted work to commence. The ABB personnel had a problem because their own company safety requirements state that prior to any work occurring the Buss had to be grounded with cables. This lead to a disagreement between ABB and Georgia Power's Ralph Granger. Ralph Granger was subsequently called by Steve Creekmur (ABB Regional Manager Tech Services Manager also former Georgia Power employee) where they discussed the need for a ground on the Buss Bar. According to (b) (7)(D) Ralph originally didn't want to talk with Steve Creekmur but did because originally (b) (7)(D) had used Ralph's phone to call Steve but Ralph had hung up while the phone was calling Steve. Ralph hung up the phone and told (b) (7)(D) that he didn't need to discuss the grounds with Steve because they weren't going to hang them. However, Steve then proceeded to call the number back which had hung up with and got ahold of Ralph in from of (b) (7)(D) and discussed the grounds with Steve. After that short conversation Ralph agreed to place the grounds and told (b) (7)(D) to leave for lunch.

After (b) (7)(D) returned from lunch the (b) (7)(D) noted that Cabinet/Frame 7 had been opened by Ralph Granger and ground had been hung on the Buss Bar. (b) (7)(D) checked frame 7 for the absence of voltage and (b) (7)(D) checked the ground. They also verified that the Buss was dead in frames 1 and 1A. The ground was found to be not adequate in that it wasn't connected properly and fell off when (b) (7)(D) grabbed it. At this point Ralph made the statement to (b) (7)(D) "that was the best he could do with his hands". (b) (7)(D) then reattached the grounds and tightened them adequately. (b) (7)(D) then finished their verification by checking for the absence of voltage with a tic trace (Rated for the voltage)

Ralph then left and (b) (7)(D) started work. First order of Bussiness was to disassemble and remove the Buss and equipment from the two cabinets/frames. (b) (7)(D) worked in frame 1 and (b) (7)(D) worked in frame 1A. (b) (7)(D) finished his work first and completed his work on Monday. (b) (7)(D) continued to disassemble the equipment in 1A which was different from the other frame in that it had a pot transformer in it which weighted about 75 pounds and required both employees to lift and remove. This was hard because the cabinets are only 36 inches wide. The employees left the site on Monday having finished the disassembly of frame 1, the partial disassembly of frame 1A.

Upon returning to work on Tuesday October 27, 2015 at approximately 8 am with (b) (7)(D) proceeded to continue his disassembly of the cabinet while (b) (7)(D) unpacked the equipment which had been shipped to the site. According to (b) (7)(D) he noted that he was missing some brackets and called the engineering office of ABB located in Lake Mary Florida. (b) (7)(D) remembers talking with the engineer but not much after that. The incident occurred at 9-9:20 am. The incident happened in Frame 5.

Incident:

The employees were working that morning. (b) (7)(D) was disassembling frame 1A and (b) (7)(D) (b) (7)(D) was working separately at the time leading up to the incident. (b) (7)(D) stated that all you have to do was remove 4 thumbscrews and you could access the Buss Bar in frame 5 which was only 36 inches wide. (b) (7)(D) doesn't remember the reason why but (b) (7)(D) entered the cabinet and contacted the Buss Bar or cables. According to (b) (7)(D) found (b) (7)(D) after the blast rummaging through the materials on the ground saying "I've got this don't worry". (b) (7)(D) was then transported to the local hospital and further transport occurred to the burn center.

Contributing Factors to the incident

NOTE: This is separate from the order of events but contributed to the incident. Georgia Power had a substantially different reason for a clearance listed on their own internal clearance form.

The CSHO interviewed (b) (7)(D) and asked (b) (7)(D) why (b) (7)(D) thought frame 5 was not powered. (b) (7)(D) stated "have you looked at the clearance? It says Buss B is tagged out."

On Georgia Powers Tagout/Clearance procedure 4-15-10-26-02 the reason listed was Retrofit 4KV Frame 1A for Future Cubicle with the equipment listed as 4160V JBR 3/4 Buss B. On Tagout/Clearance procedure 4-15-10-26-03 the reason listed was Retrofit 4KV Frame 1A on Buss B for Future Cubicle with the equipment listed as 4160V Limestone Buss D Normal Supply 648664.

However, there is a disconnect between the listed equipment as being dead and what was stated during the (b) (7)(D) Interview. On October 29, 2015 the CSHO interviewed (b) (7)(D) with his union steward present. During this interview the CSHO walked down the printed lockout and reviewed the electronic locks and controls on the Georgia Power Plants SCADA system.

According to (b) (7)(D) the process of a tagout/clearance procedure was to follow this. Someone requested the procedure, operations generated the procedure. A BTO employee walked down the procedure while an AEO executed the procedure. Both the BTO and AEO employees could hang the tags but they had to both be present during the execution and hanging of the tags.

(b) (7)(D) stated that clearances 02 and 03 were requested by Ralph granger and someone listed as (b) (7)(D). (b) (7)(D) then reviewed the one-line diagram and generated the clearance. He as the BTO watched as the AEO (b) (7)(D) executed the Tagout/Clearance.

During the walk down portion of the interview (b) (7)(D) was asked the question why the blast had happened. (b) (7)(D) stated that the ABB employee had entered a cabinet that wasn't locked out. (b) (7)(D) stated that they were only supposed to be in frames 1 and 1A. (b) (7)(D) then stated that he had locked out those frames but power was still present in frames 3 and 5.

OPENING CONFERENCE NOTES:

The opening was held in the front guard shack conference room with Kevin Johnson Corporate Safety

RECORDKEEPING

(Other than 29 CFR 1904 requirements)

Does the employer have a record keeping program relating to any occupational health issues (monitoring, medical, training, respirator fit tests, ventilation measurements, etc.)?

☐ Yes ☒ No

Are any programs required by OSHA health standards?

☐ Yes ☒ No

RECORDKEEPING PROGRAMS

(Other than 29 CFR 1904 requirements)

Does the employer have a recordkeeping program relating to any occupational health issues (monitoring, medical, training, respirator fit test, ventilation measurements, etc.)?

☐ Yes ☐ No ☐ Not Reviewed/Applicable

Are any programs required by OSHA standards?

☐ Yes ☐ No ☐ Not Reviewed/Applicable

COMPLIANCE PROGRAMS

(engineering controls, PPE, regulated areas, emergency procedures, compliance plans, etc.)

Address any relevant compliance efforts regarding potential health hazards covered by the scope of the inspection:

The PPE required depending on the portion of the equipment you were near. In the JBR ¾ building cotton clothing was required and when working on the equipment a level 2 Arc Flash suit was required.

PERSONAL HYGIENE FACILITIES AND PRACTICES

(showers, lockers, change rooms, etc.)

Are any required by OSHA health standards?

☐ Yes ☐ No ☒ Not Reviewed/Applicable

What Standards:

HAZARD COMMUNICATION PROGRAM

Hazcomm not evaluation as part of this inspection.

Written Program (complete)

☐ Yes ☐ No

MSDS's (all)

☐ Yes ☐ No

Labeling (adequate)

☐ Yes ☐ No
Training (complete)

☐ Yes ☐ No
Copy of MSDS's/Program attached

☐ Yes ☐ No

Comments:

ACCESS TO EXPOSURE & MEDICAL RECORDS:

☐ Yes ☐ No ☒ *Not Reviewed/Applicable*

FIRE PROTECTION & EVACUATION PROCEDURES:

☐ Yes ☐ No ☒ *Not Reviewed/Applicable*

SYSTEM SAFETY AND EMERGENCY RESPONSE:

☐ Yes ☐ No ☒ *Not Reviewed/Applicable*

RESPIRATOR PROGRAM:

☐ Yes ☐ No ☒ *Not Reviewed/Applicable*

LOCKOUT TAGOUT:

☒ Yes ☐ No ☐ *Not Reviewed/Applicable*

FIRST AID:

☒ Yes ☐ No ☐ *Not Reviewed/Applicable*

ELECTRICAL SAFE WORKPRACTICES:

☒ Yes ☐ No ☐ *Not Reviewed/Applicable*

EXPOSURE CONTROL PLAN:

☐ Yes ☐ No ☒ *Not Reviewed/Applicable*

LABORATORY STANDARD:

☐ Yes ☐ No ☒ Not Reviewed/Applicable

EVALUATION OF EMPLOYER'S OVERALL SAFETY AND HEALTH PROGRAM

General Industry:

☒ Yes ☐ No *Employer has a Safety & Health Program*

☒ Yes ☐ No *Written*

☒ Yes ☐ No *(partial) Copy Attached*

Evaluation of Safety and Health Program

(0=Nonexistent 1=Inadequate 2=Average 3=Above Average 4=Not Reviewed/Applicable)

Written S&H Program

Communication to Employees

Enforcement

Safety Training Program

Health Training Program

Accident Investigation Performed

Preventive Action Taken

Findings/Comments: The inadequate tagout procedures and inadequate communication with the outside contractor as to what equipment was deenergized lead to the situation whereas the ABB employee was injured in an arc flash/blast incident.

CLOSING CONFERENCE NOTES

CSHO (b) (7)(C) had an on-site closing conference. In attendance were the following: (b) (7)(D) and Kevin Johnson on 4/18/2016.

All employer rights, responsibilities, and obligations were discussed at the closing conference. The information regarding the receipt of citations, informal conference, posting of citations, abatement verification, and any formal contesting of any or all citations. CSHO discussed observed hazards and afforded assistance in correcting the hazards with the employer.

Were any unusual circumstances encountered such as, but not limited to, abatement problems, expected contest and/or negative employer attitude? If yes, explain below.

☒ Yes ☐ No

Delays in conducting the inspection:

19. Closing Conference Checklist ("x" as appropriate)

- ☐ No Violations Observed
- ☒ Gave Copy Employer Rights
- ☒ Reviewed Hazards and Standards
- ☒ Discuss Employer Rights/Obligations
- ☒ Encouraged Informal Conference
- ☒ Offered Abatement Assistance
- ☒ Discussed Consultation Programs
- ☐ Employer/Employee Questionnaires

Closing Conference Held with Employee Representative

☐ Jointly ☒ Separately

The closing was held in the office of the IBEW with Larry Rooks.

U.S. Department of Labor
Occupational Safety and Health Administration

Violation Worksheet

Print Date : 04/28/2016

Inspection Number	1102415
Opt. Insp. Number	

Establishment Name	Georgia Power Company				
DBA Name					
Type Of Violation	Serious	Citation Number	1	Item/Group	1 / a
Number Exposed	3	No. Instances	1	REC	
Special Enforcement?			Employer's Relationship to Hazard		
Standard	1910.269(a)(3)(iii)				
Substance Codes			Photo/Video Number		
Alleged Violation Description	<p>29 CFR 1910.269(a)(3)(iii): The contract employer and the host employer did not coordinate their work rules and procedures so that each employee of the contract employer and the host employer is protected as required by this section.</p> <p>a. JBR 3/4 Building - The Georgia Power Company and ABB, Inc. Company did not coordinate their work rules and procedures so that both Georgia Power Company and ABB, Inc. personnel were protected from shock and arc blast/flash hazards while performing circuit buss modification in Frame Cabinets 1, 1A and 7.</p>				
Recommended Abatement Action					

Penalty

Severity	High		
Severity Justification	Shock Arc Flash/blast		
Probability	Greater		
Probability Justification	The sub-contractor contracted the live Buss in frame 5 and Ralph Touched the Buss without PPE		
Gravity	High	Size	0%
Gravity based Penalty	7000.00	Good Faith	0%
Num Times Repeated		History	10% Increase
Multiplier	1	Quick Fix	0%
Calculated Penalty	7700.00	Proposed Penalty	7000.00
Proposed Penalty Justification:	Proximity to hazard		

Abatement Details

Days to Abate	30 Wkg Days	Abatement Status	
User-entered Abatement Due Date	06/13/2016	Date Abated	
Abatement Documentation Required?	Yes	Date Verified	
Abatement Completed Description:			

MultiStep Abatement

Type/Other Type	Days to abate	User entered Abatement Due Date	Completed(status)	Verify Date
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Employee Exposure

Exposure Instance	No. Exposed	Employer	Name and Address Telephone Numbers	Duration	Frequency	Proximity
a	3	Georgia Power Company	Ralph Granger (b) (7)(D) Home: Work: Personal Mobile: (b) (7)(D) (b) (7)(D) Fax:	1.00 day	1 Time X 30-45 Minutes	
a	3	ABB, Inc.	(b) (7)(D) Home: (b) (7)(D) Work: Personal Mobile: Fax:	2.00 day	Daily	
a	3	ABB, Inc.	(b) (7)(D) Home: (b) (7)(D) Work: Personal Mobile: Fax:	2.00 day	Daily	

20. Instance Description: A. Hazard B. Equipment C. Location D. Injury/Illness E. Measurements

a) **Hazards-Operation/Condition-Accident:** The Georgia Power Company and ABB, Inc. Company did not coordinate their work rules and procedures so that both Georgia Power Company and ABB, Inc. personnel were protected from shock and arc blast/flash hazards while performing circuit buss modification in Frame Cabinets 1, 1A

and 7.

This lead to a situation where according to the ABB employees it was company policy to have the entire switchgear deenergized and grounded prior to work. It was the position of the Georgia Power personnel representative on site, Ralph Granger that temporary protective grounds didn't need to be hung.

This disagreement was only solved after the involvement of management Steve Creekmur who called Ralph. However Ralph still did not inform the workers that power was still energized in cabinet 5. As the ABB technicians stated they thought every cabinet between frames 7 where the grounds were hung and frames 1 and 1A were deenergized. They were not informed that frame 5 was still energized on the "high" side and was an alternate feed to the cabinets. When looking at the front of the cabinets the tags were hung and it was shown to be deenergized.

This misunderstanding and the lack of any real communication as to the limits of the tagout lead to the misunderstanding which resulted in an arc flash/blast which injured the ABB employee. Had the equipment safeties not activated and cut power there was a real possibility that this could have been a fatality.

b) Equipment: Metal-Clad Switchgear: No. G-749961 (Listed by ABB, Inc. Lake Mary, Florida 32746)

UL Listed # E-143324.

Serial Number 1VALCS01558B01

Max Volts 4.76

Main Bus Capacity 3500A

Peak withstand Current 130KA

Short-Time, Sym RMS 50KAA

The Original design date drawing indicates this was approved as installed on September 1, 2005. The materials indicate that the customer (Georgia Power) had a Purchase Order XAK2774 and 5081777 and S81303.

The one-line diagram lists several sources of power to the bus. They are as follows:

Frame 1, Transformer 648456 @ 3,000 Amps

Frame 1A, Transformer 648444 @ 3,000 Amps

Frame 1B, Transformer 648828 @ 2,000 Amps

Frame 3, Transformer 648664 @ 3,000 Amps

Frame 3, Transformer 648236 @ 3,500 Amps

Frame 5, Transformer 648108 @ 3,500 Amps

NOTE: Bus B regular power supply is through Frame 3, with Frame 5 as an alternate supply source.

c) **Location:** Plant Bowen, JBR 3/4 Building

d) **Injury/Illness (and Justifications for Severity and Probability):** Severity, Shock from Arc Flash/Blast.

Probability, The sub-contractor contacted the live Buss in frame 5 and Ralph Touched the Buss without PPE

e) **Measurements:** Management and employee interviews, along with one line diagrams show 4160V AC, 480 V AC, 110V AC, 110 V DC.

One Line Diagram

The one-line diagram lists several sources or potential sources of power to the Busses. They are as follows:

Frame 1, Transformer 648456 @ 3,000 Amps

Frame 1A, Transformer 648444 @ 3,000 Amps

Frame 1B, Transformer 648828 @ 2,000 Amps

Frame 3, Transformer 648664 @ 3,000 Amps

Frame 3, Transformer 648236 @ 3,500 Amps

Frame 5, Transformer 648108 @ 3,500 Amps

The Tagout (Clearance) Procedure accounted for:

Procedure 4-15-10-26-02 accounted for the following Transformer feeds to Buss B

This procedure accounted for

Frame 1, Transformer 648456 @ 3,000 Amps

Frame 1A, Transformer 648444 @ 3,000 Amps

Frame 1B, Transformer 648828 @ 2,000 Amps

Frame 3, Transformer 648236 @ 3,500 Amps

Frame 5, Transformer 648108 @ 3,500 Amps

Procedure 4-15-10-26-03 accounted for the following transformer feed to Buss B

Frame 1A, Transformer 648664 @ 3,000 Amps

Not accounted for in clearance 4-15-10-26-02

Frame 3, Transformer 648664 @ 3,000 Amps which is the Normal Power to the Buss

Frame 5, Transformer 648108 @ 3,500 Amps, still powering the high side.

**** Important Information****

1. Work occurred in Frames 1 and 1A.
2. The Incident occurred in Frame 5.
3. Temporary Protective Grounds were hung in Frame 7.
4. During the walk down of the procedure power was still on in Frame 1A.

During the walk down the ABB employees found power still supplied to frame 1A. Obtained from 2 employees interviews on multiple days. The two ABB employees didn't know that it was still powered in Frame 5 on the high side.

23. Employer Knowledge: When asked for what was coordinated and exchanged through the process to inform each other of their respective lockout or tagout procedures and programs the company response through Toshwanda who is the corporate counsel "It may take some time to find the requested information. Meanwhile refer to page 4 of the purchase order between Georgia Power and ABB for this job which has already been produced."

As for knowledge of the conditions and sub contractor exposures on site during the actual incident Georgia Power had a manager titled "Maintenance Manager" who was responsible for coordinating with and overseeing the work of the ABB technicians. Ralph Granger was aware of and in control of the tagout procedure which was inadequate. He also had several arguments with the technicians on site concerning safety to which he often disagreed with them.

24. Comments: Of interest here is that the contract in theory makes the supplier "ABB" the source of knowledge for safety on the worksite, though Georgia Power has exclusive control and will not relinquish control of the tagout program. Georgia Power also does not allow sub contractor to sign onto the Georgia Power clearance/tagout procedure. This double language precludes anyone from having a clear understanding of the safety related to tagout and lead to this unfortunate incident.

From the contract:

Communication with Representatives. Supplier shall coordinate all safety and work rules and procedures with Company and all Supplier Representatives. Supplier represents and warrants that it has communicated and discussed with Company the characteristics of the work and the work site that are related to the safety of the work to be performed, including, as applicable to the work, (i) the nominal voltage of lines and equipment, (ii) the maximum switching-transient voltages, (iii) the presence of hazardous induced voltages, the presence and condition of protective grounds and equipment grounding conductor, (iv) the location of circuits and equipment, including electric supply lines and condition of poles, communication lines, and fire-protective signaling circuits, and (v) any environmental conditions relating to safety. Supplier further represents that it has instructed its Representatives of the above relevant information supplied by Company and agrees that it shall advise and notify Company and Suppliers Representatives of any unique hazardous conditions presented by the work including any such conditions found or identified during the work. Supplier has communicated and instructed its Representatives on all applicable safety, health and legal requirements and job-related duties and hazards including, without limitation (i) Applicable Laws and Occupational Safety and Health Administration (OSHA) requirements and regulations; (ii) Suppliers safety program; (iii) any project-specific safety plan; (iv) any information specific to the work performed under this Agreement; (v) any work site hazard; and (vi) obligations under this Agreement.

Regardless of the agreement it is law that they coordinate their safety programs and that if Georgia Power as they do here exercises exclusive control over the procedure used for employee safety they have to communicate and coordinate with ABB to prevent an accident such as this from happening.

25. Other Employer Information: On February 23, 2016 the CSHO emailed the safety manager Kevin Johnson and asked the following question. The CSHO asked for "Portion of GA Power / ABB contract showing how the two companies will coordinate their individual LOTO programs."

Their lawyers response on "6. It may take some time to find the requested information. Meanwhile, OSHA may refer to page 4 of the purchase order between Georgia Power and ABB for this job, which has already been produced."

From the purchase order page 4:

Compliance with Laws. Supplier will comply at all times with all applicable federal, state, county, local and municipal laws, rules, codes, ordinances, and regulations that in any manner affect this Order, including for example (without limitation) (i) the rules and regulations of the regulatory agencies who have jurisdiction over the work performed under this Order such as all safety and health standards applicable to the work under this Order including those promulgated by the U.S. Occupational Safety and Health Act of 1970, as amended, including, but not limited to OSHA General Industry Regulations 1910.269 and 1926 Subpart V, or the Nuclear Regulatory Commission including the employee protection provisions under 10 C.F.R. 50.7 which prohibit discrimination or retaliation against an employee for engaging in certain protected activities; (ii) the obtaining of licenses and permits; (iii) all labor laws and regulations including the use of U.S. citizens or properly documented alien workers under the Immigration Act of 1990 and the Immigration and Nationality Act of 1952, as amended; (iv) the Equal Opportunity Clause 41 CFR 60-1.4 and all employment discrimination laws and regulations such as Title VII of the Civil Rights Act and Executive Order 11246, as amended; (v) the U.S. Foreign Corrupt Practices Act; (vi) the environmental laws and regulations including the handling of hazardous waste or hazardous substances; (vii) all import and export laws and regulations; and (viii) § 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act involving disclosures relating to Conflict Minerals originating in the Democratic Republic of the Congo or an adjoining country (Applicable Laws). Supplier represents and warrants none of the products or materials provided to Purchaser under this Order contain any Conflict Minerals which originated from the Democratic Republic of the Congo or neighboring countries. Supplier will ensure that all operations incident to its obligations under this Order are performed with qualified personnel, properly licensed and trained in accordance with Applicable Laws. Unless otherwise stated in the Order, taxes associated with this Order will be handled in accordance with Applicable Laws, based on the goods furnished and the jurisdiction in which they are furnished. Supplier will not make or authorize any direct or indirect contribution of any kind or nature whatsoever to any federal, state, or local government agency, any political candidate, public official, office holder, political party, committee or agency thereof on behalf of Company. In accordance with the U.S. Department of Labor's regulations implementing the Vietnam Era Veterans Readjustment Assistance Act (VEVRAA, as amended) at 41 CFR Part 60-300, Company and Supplier shall abide by the requirements of 41 CFR 60-300.5(a). This regulation prohibits discrimination against qualified protected veterans, and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified protected veterans. In accordance with the U.S. Department of Labor's regulations implementing Section 503 of the Rehabilitation Act of 1973, as amended (Section 503) at 41 CFR Part 60-741, Company and Supplier shall abide by the requirements of 41 CFR 60-741.5(a). This regulation prohibits discrimination against qualified individuals on the basis of disability, and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified individuals with disabilities.

U.S. Department of Labor
Occupational Safety and Health Administration

Violation Worksheet

Print Date : 04/28/2016

Inspection Number	1102415
Opt. Insp. Number	

Establishment Name	Georgia Power Company				
DBA Name					
Type Of Violation	Serious	Citation Number	1	Item/Group	1 / b
Number Exposed	3	No. Instances	1	REC	
Special Enforcement?			Employer's Relationship to Hazard		
Standard	1910.269(d)(8)(iv)				
Substance Codes			Photo/Video Number		
Alleged Violation Description	<p>29 CFR 1910.269(d)(8)(iv): Whenever outside servicing personnel are to be engaged in activities covered by paragraph (d) of this section, the on-site employer and the outside employer shall inform each other of their respective lockout or tagout procedures, and each employer shall ensure that his or her personnel understand and comply with restrictions and prohibitions of the energy control procedures being used.</p> <p>a. Plant Bowen, JBR 3/4 Building - Prior to performing electrical circuit modification work using Georgia Power Company clearance procedures, Georgia Power Company and ABB, Inc. did not inform each other's employee representatives of their respective lockout or tagout program, procedures and policies to ensure each employee understood and complied with the restrictions and prohibitions of the energy control procedures being used.</p>				
Recommended Abatement Action					

Penalty

Severity	High		
Severity Justification	Death from shock or serious injuries such as 2nd and 3rd degree burns and contusions from Arc Flash/Blast		
Probability	Lesser		
Probability Justification	The equipment on the high side was still energized. This was unknown to the outside contractor.		
Gravity	Moderate	Size	0%
Gravity based Penalty	5000.00	Good Faith	0%
Num Times Repeated		History	10% increase
Multiplier	1	Quick Fix	0%
Calculated Penalty	0.00	Proposed Penalty	0.00
Proposed Penalty Justification:			

Abatement Details

Days to Abate	30 Wkg Days	Abatement Status	
User-entered Abatement Due Date	06/13/2016	Date Abated	
Abatement Documentation Required?	Yes	Date Verified	
Abatement Completed Description:			

MultiStep Abatement

Type/Other Type	Days to abate	User entered Abatement Due Date	Completed(status)	Verify Date
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Employee Exposure

Exposure Instance	No. Exposed	Employer	Name and Address Telephone Numbers	Duration	Frequency	Proximity
a	3	ABB, Inc.	(b) (7)(D) Work: Personal Mobile: Fax:	1.00 day	Daily	Touching the Buss
a	3	ABB, Inc.	(b) (7)(D) Work: Personal Mobile: Fax:	2.00 day	Daily	Touching the Buss
a	3	Georgia Power Company	Ralph Granger (b) (7)(D) Home: Work: Personal Mobile: (b) (7)(D) (b) (7)(D) Fax:	2.00 day	Daily	Touching the Buss

a) **Hazards-Operation/Condition-Accident:** Prior to performing electrical circuit modification work using Georgia Power Company clearance procedures, Georgia Power Company and ABB, Inc. did not inform each others employee representatives of their respective lockout or tagout program, procedures and policies to ensure each employee understood and complied with the restrictions and prohibitions of the energy control procedures being used. In employee interviews with the ABB technicians it was learned that according to them they corporately required that the entire switchgear cabinet be deenergized and grounded with temporary grounding cables. According to employee interviews with Georgia Power personnel they can leave parts of the switchgear energized such as the high side and no install temporary protective cables.

These differences should have been hashed out prior to starting work not during the walk down process. According to the ABB statements there was a disagreement about installing the temporary protective grounds and also the ABB techs were not informed that the high side in frame 5 was still energized.

This lack of coordination lead to the ABB technicians assuming that everything between frames 7 and 1 were deenergized. That was because the ABB technicians opened frames 1, 1A and 7 and installed the Georgia Power person installed the temporary protective cables in Frame 7. After verifying that there was no voltage in frames 7, 1 and 1A the technicians starting working and on the second day entered the frame 5 and came in contact with the energized conductor. This mis communication could have been avoided had they coordinated their programs and limitation of the programs and procedures used.

b) **Equipment:** Metal-Clad Switchgear: No. G-749961 (Listed by ABB, Inc. Lake Mary, Florida 32746)

UL Listed # E-143324.

Serial Number 1VALCS01558B01

Max Volts 4.76

Main Bus Capacity 3500A

Peak withstand Current 130KA

Short-Time, Sym RMS 50KAA

The Original design date drawing indicates this was approved as installed on September 1, 2005. The materials indicate that the customer (Georgia Power) had a Purchase Order XAK2774 and 5081777 and S81303.

The one-line diagram lists several sources of power to the bus. They are as follows:

Frame 1, Transformer 648456 @ 3,000 Amps

Frame 1A, Transformer 648444 @ 3,000 Amps

Frame 1B, Transformer 648828 @ 2,000 Amps

Frame 3, Transformer 648664 @ 3,000 Amps

Frame 3, Transformer 648236 @ 3,500 Amps

Frame 5, Transformer 648108 @ 3,500 Amps

NOTE: Bus B regular power supply is through Frame 3, with Frame 5 as an alternate supply source.

c) **Location:** Plant Bowen, JBR 3/4 Building.

d) **Injury/Illness (and Justifications for Severity and Probability):** Severity, Shock from Arc Flash/Blast.

Probability, The sub-contractor contracted the live Buss in frame 5 and Ralph Touched the Buss without PPE

e) **Measurements:** Management and employee interviews, along with one line diagrams show 4160V AC, 480 V AC, 110V AC, 110 V DC.

One Line Diagram

The one-line diagram lists several sources or potential sources of power to the Busses. They are as follows:

Frame 1, Transformer 648456 @ 3,000 Amps

Frame 1A, Transformer 648444 @ 3,000 Amps

Frame 1B, Transformer 648828 @ 2,000 Amps

Frame 3, Transformer 648664 @ 3,000 Amps

Frame 3, Transformer 648236 @ 3,500 Amps

Frame 5, Transformer 648108 @ 3,500 Amps

The Tagout (Clearance) Procedure accounted for:

Procedure 4-15-10-26-02 accounted for the following Transformer feeds to Buss B

This procedure accounted for

Frame 1, Transformer 648456 @ 3,000 Amps

Frame 1A, Transformer 648444 @ 3,000 Amps

Frame 1B, Transformer 648828 @ 2,000 Amps

Frame 3, Transformer 648236 @ 3,500 Amps

Frame 5, Transformer 648108 @ 3,500 Amps

Procedure 4-15-10-26-03 accounted for the following transformer feed to Buss B

Frame 1A, Transformer 648664 @ 3,000 Amps

Not accounted for in clearance 4-15-10-26-02

Frame 3, Transformer 648664 @ 3,000 Amps which is the Normal Power to the Buss

Frame 5, Transformer 648108 @ 3,500 Amps, still powering the high side.

**** Important Information****

1. Work occurred in Frames 1 and 1A.
2. The incident occurred in Frame 5.
3. Temporary Protective Grounds were hung in Frame 7.
4. During the walk down of the procedure power was still on in Frame 1A.

During the walk down the ABB employees found power still supplied to frame 1A. Obtained from 2 employees interviews on multiple days. The two ABB employees didn't know that it was still powered in Frame 5 on the high side.

23. **Employer Knowledge:** The Georgia Power Company's maintenance manager Ralph Granger was the one tasked with talking and coordinating with the ABB technicians. He gave them a copy of the one line diagram but did not give them a copy of the tagout procedure used.

He should have coordinated the programs and discussed the programs prior to work starting on that Monday morning.

24. **Comments:** Sections of the relevant contract:

SECTION 2. CONTRACTOR SERVICES AND COMPLIANCE (Page 27)

2.2. Safety and Health. Contractor is solely responsible for the safe performance of its Services, including the safety of its Personnel and the public.

Training. Contractor is solely responsible for training Contractor's Employees and ensuring that all Personnel have the necessary technical qualifications, expertise and safety training. Contractor must also instruct its Personnel concerning any danger associated with providing the Services.

2.14. Work Site Activities. Contractor must supervise, manage and direct the Services, using its best

skill and attention. Contractor is solely responsible for, and in control of all Procedures, unless the Agreement Documents provide specific instructions. If the Agreement Documents include specific instructions, Contractor will be solely responsible for safety unless Contractor gives timely written notice to the Project Coordinator that the Procedures are not, or may not be, safe. Contractor is responsible for all Work Site utility requirements and costs (including electrical power, water, compressed air and sanitary facilities) unless specifically stated otherwise in another Agreement Document. Contractor must implement quality control procedures and conduct tests sufficient to assure the Services are completed in strict conformance to all Agreement Documents.

A. Utility Coordination. Contractor is responsible for any necessary coordination of the Services (whether underground or overhead) with private parties, local governments and other utilities and must comply with all Applicable Laws (particularly those of the state in which the Project is performed) in such coordination and notification.

8. Clearances. Provided that at least one member of Contractor's crew performing the Services has current certification, Contractor will be responsible for signing onto any line clearance required for the Services. While performing Services under a clearance, Contractor must maintain continuous communication with Company's control center by using a mobile telephone or two-way radio compatible with devices used by Company.

AND

Of interest here is that the contract in theory makes the supplier "ABB" the source of knowledge for safety on the worksite, though Georgia Power has exclusive control and will not relinquish control of the tagout program. Georgia Power also does not allow sub contractor to sign onto the Georgia Power clearance/tagout procedure. This double language precludes anyone from having a clear understanding of the safety related to tagout and lead to this unfortunate incident.

From the contract:

Communication with Representatives. Supplier shall coordinate all safety and work rules and procedures with Company and all Supplier Representatives. Supplier represents and warrants that it has communicated and discussed with Company the characteristics of the work and the work site that are related to the safety of the work to be performed, including, as applicable to the work, (i) the nominal voltage of lines and equipment, (ii) the maximum switching-transient voltages, (iii) the presence of hazardous induced voltages, the presence and condition of protective grounds and equipment grounding conductor, (iv) the location of circuits and equipment, including electric supply lines and condition of poles, communication lines, and fire-protective signaling circuits, and (v) any environmental conditions relating to safety. Supplier further represents that it has instructed its Representatives of the above relevant information supplied by Company and agrees that it shall advise and notify Company and Suppliers- Representatives of any unique hazardous conditions presented by the work including any such conditions found or identified during the work. Supplier has communicated and instructed its Representatives on all applicable safety, health and legal requirements and job-related duties and hazards including, without limitation, (i) Applicable Laws and Occupational Safety and Health Administration (OSHA) requirements and regulations; (ii) Suppliers- safety program; (iii) any project-specific safety plan; (iv) any information specific to the work performed under this Agreement; (v) any work site hazard; and (vi) obligations under this Agreement.

Regardless of the agreement it is law that they coordinate their safety programs and that if Georgia Power as they do here exercises exclusive control over the procedure used for employee safety they have to communicate and coordinate with ABB to prevent an accident such as this from happening.

25. Other Employer Information: The fault current values in the table below are the worst-case values that were used to create the arcflash labels that are on the bus. 3/4 JBR 4KV BUS B Frames Bolted Fault Current (kA)

Frames and available fault Current

1 40.443,

1A 25.578

1B 40.443

2 40.443

3 55.324 4

40.443

5 67.089

6 40.443 7 40.443

8 (Front-Top) 40.442

8 (Front-Bottom) 40.442

9 (Front-Top) 40.442

9 (Front-Bottom) 40.442

8 (Rear-Top) 40.442

8 (Rear-Bottom) 40.442

9 (Rear-Top) 40.442

9 (Rear-Bottom) 40.442

U.S. Department of Labor
Occupational Safety and Health Administration

Violation Worksheet

Print Date : 04/28/2016

				Inspection Number	1102415
				Opt. Insp. Number	
Establishment Name	Georgia Power Company				
DBA Name					
Type Of Violation	Serious	Citation Number	1	Item/Group	2 / a
Number Exposed	3	No. Instances	1	REC	
Special Enforcement?			Employer's Relationship to Hazard		
Standard	1910.269(d)(2)(iii)				
Substance Codes			Photo/Video Number		
Alleged Violation Description	<p>29 CFR 1910.269(d)(2)(iii): Procedures shall be developed, documented, and used for the control of potentially hazardous energy covered by paragraph (d) of this section.</p> <p>a. Plant Bowen, JBR 3/4 Building, Buss B - The Georgia Power clearance procedure used to isolate Frames 1 and 1A did not isolate all sources of power thereby exposing employees and subcontractors to the hazard of arc flash/blast and shock.</p>				
Recommended Abatement Action					

Penalty

Severity	High		
Severity Justification	Death from shock or serious injuries such as 2nd and 3rd degree burns and contusions from Arc Flash/Blast		
Probability	Greater		
Probability Justification	The conductors were still energized on the high side of the cabinets.		
Gravity	High	Size	0%
Gravity based Penalty	7000.00	Good Faith	0%
Num Times Repeated		History	10% Increase
Multiplier	1	Quick Fix	0%
Calculated Penalty	7700.00	Proposed Penalty	7000.00
Proposed Penalty Justification:	There was an injury to a sub contractor due to having power to the high side in the cabinets.		

Abatement Details

Days to Abate	30 Wkg Days	Abatement Status	
User-entered Abatement	06/13/2016	Date Abated	

Due Date			
Abatement Documentation Required?	Yes	Date Verified	
Abatement Completed Description:			

MultiStep Abatement

Type/Other Type	Days to abate	User entered Abatement Due Date	Completed(status)	Verify Date

Employee Exposure

Exposure Instance	No. Exposed	Employer	Name and Address Telephone Numbers	Duration	Frequency	Proximity
a	6	ABB, Inc.	(b) (7)(D) Home: Work:(b) (7)(D) Personal Mobile: Fax:	2.00 day	as needed	
a	6	Georgia Power Company	(b) (7)(D) Home: Work: Personal Mobile: Fax:	4.00 day	as needed	
a	6	Georgia Power Company	(b) (7)(D) Home: Work: Personal Mobile: Fax:	4.00 day	as needed	
a	6	ABB, Inc.	(b) (7)(D) Home: Work: Personal Mobile: Fax:	2.00 day	as needed	
a	6	Georgia Power Company	Ralph Granger (b) (7)(D) Home: Work: Personal Mobile: (b) (7)(D)	4.00 day	as needed	

			(b) (7)(D) Fax:			
a	6	Georgia Power Company	John Edwards (b) (7)(D) Work: Personal Mobile: Fax:	4.00 day	as needed	

20. Instance Description: A. Hazard B. Equipment C. Location D. Injury/Illness E. Measurements

a) **Hazards-Operation/Condition-Accident:** JBR 3/4 Building, Bus B II The procedure initially used for the isolation of Bus B did not isolate all sources of power thereby exposing employees and subcontractors to the hazard of arc flash/blast and shock.

The two employees for ABB aware performing modifications to frames 1 and 1A. They were modifying the electrical bus. In doing this they were exposed to potential voltages up to 4160.

The electrician(s) and or Team Leaders who touched and checked the cable and installed the temporary protective grounds were also exposed and potentially exposed to the hazardous power sources.

The procedure labeled 4-15-10-26-02 was listed as equipment "4160V JBR3/4 Bus B".

The procedure labeled 4-15-10-26-03 was listed as equipment "4160V Limestone Bus D Normal Supply 648664"

In all the ABB employees didn't know that the power was still supplied and energized the high side of Frame 5. As the ABB interviews stated they would have required that the entire cabinet be deenergized. However they didn't and because of the lack of knowledge as to the existence of the power source there was an arc flash/blast incident which resulted in the sub contractor being injured while the host employer GP was in control of the tagout procedure.

NOTE: All sources of power were not deenergized prior to the start of work by the ABB technicians. The interviews with the two ABB techs showed that a second clearance had to be generated to deal with the energy source feeding cubicle 1A. This still didn't address the high side power located in Frame 5.

b) **Equipment:** Metal-Clad Switchgear: No. G-749961 (Listed by ABB, Inc. Lake Mary, Florida 32746)

UL Listed # E-143324.

Serial Number 1VALCS01558B01

Max Volts 4.76

Main Bus Capacity 3500A

Peak withstand Current 130KA

Short-Time, Sym RMS 50KAA

The Original design date drawing indicates this was approved as installed on September 1, 2005. The materials indicate that the customer (Georgia Power) had a Purchase Order XAK2774 and 5081777 and S81303.

The one-line diagram lists several sources of power to the bus. They are as follows:

Frame 1, Transformer 648456 @ 3,000 Amps

Frame 1A, Transformer 648444 @ 3,000 Amps

Frame 1B, Transformer 648828 @ 2,000 Amps

Frame 3, Transformer 648664 @ 3,000 Amps

Frame 3, Transformer 648236 @ 3,500 Amps

Frame 5, Transformer 648108 @ 3,500 Amps

NOTE: Bus B regular power supply is through Frame 3, with Frame 5 as an alternate supply source.

c) **Location:** Plant Bowen, JBR 3/4 Building

d) **Injury/Illness (and Justifications for Severity and Probability):** Death or serious injury from Shock or Arc Flash/Blast.

e) **Measurements:** Management and employee interviews, along with one line diagrams show 4160V AC, 480 V AC, 110V AC, 110 V DC.

One Line Diagram

The one-line diagram lists several sources or potential sources of power to the Busses. They are as follows:

Frame 1, Transformer 648456 @ 3,000 Amps

Frame 1A, Transformer 648444 @ 3,000 Amps

Frame 1B, Transformer 648828 @ 2,000 Amps

Frame 3, Transformer 648664 @ 3,000 Amps

Frame 3, Transformer 648236 @ 3,500 Amps

Frame 5, Transformer 648108 @ 3,500 Amps

The Tagout (Clearance) Procedure accounted for:

Procedure 4-15-10-26-02 accounted for the following Transformer feeds to Buss B

This procedure accounted for

Frame 1, Transformer 648456 @ 3,000 Amps

Frame 1A, Transformer 648444 @ 3,000 Amps

Frame 1B, Transformer 648828 @ 2,000 Amps

Frame 3, Transformer 648236 @ 3,500 Amps

Frame 5, Transformer 648108 @ 3,500 Amps

Procedure 4-15-10-26-03 accounted for the following transformer feed to Buss B

Frame 1A, Transformer 648664 @ 3,000 Amps

Not accounted for in clearance 4-15-10-26-02

Frame 3, Transformer 648664 @ 3,000 Amps which is the Normal Power to the Buss

Frame 5, Transformer 648108 @ 3,500 Amps, still powering the high side.

**** Important Information****

1. Work occurred in Frames 1 and 1A.
2. The incident occurred in Frame 5.
3. Temporary Protective Grounds were hung in Frame 7.
4. During the walk down of the procedure power was still on in Frame 1A.

During the walk down the ABB employees found power still supplied to frame 1A. Obtained from 2 employees interviews on multiple days. The two ABB employees didn't know that it was still powered in Frame 5 on the high side.

23. Employer Knowledge: The Georgia Power Maintenance Manager Ralph Granger knew that the ABB technicians were working on the Buss reconstructing it in frames 1 and 1A under their programs tagout or clearance procedure.

24. Comments: The Tagout (Clearance) Procedure accounted for:

Procedure 4-15-10-26-02 accounted for the following Transformer feeds to Bus B

This procedure accounted for

Frame 1, Transformer 648456 @ 3,000 Amps
Frame 1A, Transformer 648444 @ 3,000 Amps
Frame 1B, Transformer 648828 @ 2,000 Amps
Frame 3, Transformer 648236 @ 3,500 Amps
Frame 5, Transformer 648108 @ 3,500 Amps

Procedure 4-15-10-26-03 accounted for the following transformer feed to Bus B

Frame 1A, Transformer 648444 @ 3,000 Amps

Not accounted for in clearance 4-15-10-26-02

Frame 3, Transformer 648664 @ 3,000 Amps which is the Normal Power to the Bus

Frame 5, Transformer 648108 @ 3,500 Amps, still powering the high side.

**** Important Information****

1. Work occurred in Frames 1 and 1A.
2. The incident occurred in Frame 5.
3. Temporary Protective Grounds were hung in Frame 7.
4. During the walk down of the procedure power was still on in Frame 1A.

During the walk down the ABB employees found power still supplied to frame 1A. Obtained from 2 employees interviews on multiple days. The two ABB employees didn't know that it was still powered in Frame 5 on the high side.

25. Other Employer Information: The fault current values in the table below are the worst-case values that were used to create the arcflash labels that are on the bus. 3/4 JBR 4KV BUS B Frames Bolted Fault Current (kA)

Frames and available fault Current

1 40.443,
1A 25.578
1B 40.443
2 40.443
3 55.324 4
40.443

5 67.089

6 40.443 7 40.443

8 (Front-Top) 40.442

8 (Front-Bottom) 40.442

9 (Front-Top) 40.442

9 (Front-Bottom) 40.442

8 (Rear-Top) 40.442

8 (Rear-Bottom) 40.442

9 (Rear-Top) 40.442

9 (Rear-Bottom) 40.442

U.S. Department of Labor
Occupational Safety and Health Administration

Violation Worksheet

Print Date : 04/28/2016

				Inspection Number	1102415
				Opt. Insp. Number	
Establishment Name	Georgia Power Company				
DBA Name					
Type Of Violation	Serious	Citation Number	1	Item/Group	2 / b
Number Exposed	6	No. Instances	1	REC	
Special Enforcement?			Employer's Relationship to Hazard		
Standard	1910.269(d)(2)(iv)(D)				
Substance Codes			Photo/Video Number		
Alleged Violation Description	<p>29 CFR 1910.269(d)(2)(iv)(D): Specific requirements for testing a machine or equipment to determine and verify the effectiveness of lockout devices, tagout devices, and other energy control measures.</p> <p>a. Plant Bowen, JBR 3/4 Building, Buss B - The tagout procedure used to isolate Frames 1 and 1A and render the equipment safe, did not include specific techniques and methods necessary for checking and verifying the absence of voltage on the equipment and for the hanging of temporary protective grounding cables.</p>				
Recommended Abatement Action					

Penalty

Severity	High		
Severity Justification	Death from shock or serious injuries such as 2nd and 3rd degree burns and contusions from Arc Flash/Blast		
Probability	Greater		
Probability Justification	The equipment on the high side was still energized. This was unknown to the outside contractor.		
Gravity	High	Size	0%
Gravity based Penalty	7000.00	Good Faith	0%
Num Times Repeated		History	10% increase
Multiplier	1	Quick Fix	0%
Calculated Penalty	0.00	Proposed Penalty	0.00
Proposed Penalty Justification:	A sub contractor employee was injured do to the high side in the cabinet being energized.		

Abatement Details

Days to Abate	30 Wkg Days	Abatement Status	
User-entered Abatement Due Date	06/13/2016	Date Abated	
Abatement Documentation Required?	Yes	Date Verified	
Abatement Completed Description:			

MultiStep Abatement

Type/Other Type	Days to abate	User entered Abatement Due Date	Completed(status)	Verify Date
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Employee Exposure

Exposure Instance	No. Exposed	Employer	Name and Address Telephone Numbers	Duration	Frequency	Proximity
a	6	ABB, Inc.	(b) (7)(D) Work: Personal Mobile: Fax:	2.00 day	as needed	
a	6	ABB, Inc.	(b) (7)(D) Work: Personal Mobile: Fax:	2.00 day	as needed	
a	6	Georgia Power Company	Ralph Graner (b) (7)(D) Home: Work: Personal Mobile: (b) (7)(D) (b) (7)(D) Fax:	4.00 day	as needed	
a	6	Georgia Power Company	John Edwards (b) (7)(D) Work:	4.00 day	as needed	

			Personal Mobile: Fax:			
a	6	Georgia Power	(b) (7)(D) Home: Work: Personal Mobile: Fax:	4.00 day	as needed	
a	6	Georgia Power	(b) (7)(D) Home: Work: Personal Mobile: Fax:	4.00 day	as needed	

20. Instance Description: A. Hazard B. Equipment C. Location D. Injury/Illness E. Measurements

a) **Hazards-Operation/Condition-Accident:** JBR 3/4 Building, Bus B II The tagout procedure used to isolate and render the equipment safe, did not include a clear scope and purpose which specified which equipment was to be isolated. The tagout procedure did not specify the techniques and methods were necessary to check and verify the absence of voltage on the equipment.

The equipment to be modified on Bus B included frames 1 and 1A according to interviews.

The grounds were hung in frame 7.

The scope of the tagout procedures for tagout (clearances) 02 and 03 detail this. 02 states that Equipment 4160 V JBR 3/4 Bus B and reason given on the top is Retrofit 4KV Frame 1A for future Cubicle. The clearance number 03 states that equipment: 4160V Limestone Bus D Normal Supply 648664, with a reason given states Retrofit 4KV Frame 1A on Bus B for future cubicle.

According to employee interviews with the ABB personnel they stated over multiple days that when reading these two clearances they thought the entire Bus was deenergized. When reading the scope of the work contained on the reason for clearance it still doesn't list both frames which were scheduled to be worked on. Frames 1 and 1A were going to be worked on.

The purpose of the clearance and the scope were not clear which lead to the communication error whereas the ABB technicians were not informed that power was still energized on the high side of the cabinet.

b) **Equipment:** Metal-Clad Switchgear: No. G-749961 (Listed by ABB, Inc. Lake Mary, Florida 32746)

UL Listed # E-143324.

Serial Number 1VALCS01558B01

Max Volts 4.76

Main Bus Capacity 3500A

Peak withstand Current 130KA

Short-Time, Sym RMS 50KAA

The Original design date drawing indicates this was approved as installed on September 1, 2005. The materials indicate that the customer (Georgia Power) had a Purchase Order XAK2774 and 5081777 and S81303.

c) **Location:** Plant Bowen, JBR 3/4 Building

d) **Injury/Illness (and Justifications for Severity and Probability):** Death from Shock or severe burns from an arc flash/blast incident.

e) **Measurements:** Management and employee interviews, along with one line diagrams show 4160V AC, 480 V AC, 110V AC, 110 V DC.

One Line Diagram

The one-line diagram lists several sources or potential sources of power to the Busses. They are as follows:

Frame 1, Transformer 648456 @ 3,000 Amps

Frame 1A, Transformer 648444 @ 3,000 Amps

Frame 1B, Transformer 648828 @ 2,000 Amps

Frame 3, Transformer 648664 @ 3,000 Amps

Frame 3, Transformer 648236 @ 3,500 Amps

Frame 5, Transformer 648108 @ 3,500 Amps

The Tagout (Clearance) Procedure accounted for:

Procedure 4-15-10-26-02 accounted for the following Transformer feeds to Buss B

This procedure accounted for

Frame 1, Transformer 648456 @ 3,000 Amps

Frame 1A, Transformer 648444 @ 3,000 Amps

Frame 1B, Transformer 648828 @ 2,000 Amps

Frame 3, Transformer 648236 @ 3,500 Amps

Frame 5, Transformer 648108 @ 3,500 Amps

Procedure 4-15-10-26-03 accounted for the following transformer feed to Buss B

Frame 1A, Transformer 648664 @ 3,000 Amps

Not accounted for in clearance 4-15-10-26-02

Frame 3, Transformer 648664 @ 3,000 Amps which is the Normal Power to the Buss

Frame 5, Transformer 648108 @ 3,500 Amps, still powering the high side.

**** Important Information****

1. Work occurred in Frames 1 and 1A.
2. The incident occurred in Frame 5.
3. Temporary Protective Grounds were hung in Frame 7.
4. During the walk down of the procedure power was still on in Frame 1A.

During the walk down the ABB employees found power still supplied to frame 1A. Obtained from 2 employees interviews on multiple days. The two ABB employees didn't know that it was still powered in Frame 5 on the high side.

23. Employer Knowledge: The Georgia Power personnel not only specified the work they coordinated the schedules of the personnel. This means they knew of the conditions present, exposure of the sub contractors employees to the hazards and overall controlled the work and exposure on site.

24. Comments: The employer stipulates the subcontractor employee misconduct defense. However in reviewing the paperwork and interviewing the employees from both companies this is a hard defense to justify. Not only did Georgia Power personnel miss shutting off energized conductors prior to work in cubicle 1A they also fought the sub contractor in having to hanging temporary protective grounds. This along with not indicating the limits of the tagout (Clearances) as to what was deenergized and what was energized left too many unknowns to say that the employees of ABB were committing a mistake.

If just in reading the Georgia Power clearances 02 and 03 one would assume that work was only going to be occurring in Frame 1A. However from employee interviews and records obtained during the inspection it is known that work was on going in frames 1 and 1A but not indicated on the clearance sheets. Too blame the ABB employees for misconduct means that Georgia Power does not take responsibility for not first identifying and reenergizing the power in frame 1A and then fighting with the sub contractor employees and managers over the hanging of protective grounds.

25. Other Employer Information: The fault current values in the table below are the worst-case values that were used to create the arcflash labels that are on the bus. 3/4 JBR 4KV BUS B Frames Bolted Fault Current (kA)

Frames and available fault Current

1 40.443,

1A 25.578

1B 40.443

2 40.443

3 55.324 4

40.443

5 67.089

6 40.443 7 40.443

8 (Front-Top) 40.442

8 (Front-Bottom) 40.442

9 (Front-Top) 40.442

9 (Front-Bottom) 40.442

8 (Rear-Top) 40.442

8 (Rear-Bottom) 40.442

9 (Rear-Top) 40.442

9 (Rear-Bottom) 40.442

U.S. Department of Labor
Occupational Safety and Health Administration

Violation Worksheet

Print Date : 04/28/2016

Inspection Number	1102415
Opt. Insp. Number	

Establishment Name	Georgia Power Company				
DBA Name					
Type Of Violation	Serious	Citation Number	1	Item/Group	3 /
Number Exposed	3	No. Instances	1	REC	
Special Enforcement?			Employer's Relationship to Hazard		
Standard	1910.269(d)(2)(ii)(B)(2)				
Substance Codes			Photo/Video Number		
Alleged Violation Description	<p>29 CFR 1910.269(d)(2)(ii)(B)(2): In demonstrating that a level of safety is achieved in the tagout program equivalent to the level of safety obtained by the use of a lockout program, the employer shall demonstrate full compliance with all tagout-related provisions of this standard together with such additional elements as are necessary to provide the equivalent safety available from the use of a lockout device. Additional means to be considered as part of the demonstration of full employee protection shall include the implementation of additional safety measures such as the removal of an isolating circuit element, blocking of a controlling switch, opening of an extra disconnecting device, or the removal of a valve handle to reduce the likelihood of inadvertent energizing.</p> <p>a. Plant Bowen, JBR 3/4 Building - The Georgia Power Company does not have a tagout program which demonstrated a level of safety equivalent to that of a lockout program in that the written clearance procedure did not contain additional steps necessary for demonstrating equivalency such as the additional safety measure of removing an additional isolating circuit element or the opening of an additional disconnecting device.</p>				
Recommended Abatement Action					

Penalty

Severity	High		
Severity Justification	Death from Shock or Arc Flash/Blast. Also possible to sustain Burns from an Arc Incident.		
Probability	Greater		
Probability Justification	The employees were touching the Buss bar.		
Gravity	High	Size	0%
Gravity based Penalty	7000.00	Good Faith	0%
Num Times Repeated		History	10% increase
Multiplier	1	Quick Fix	0%
Calculated Penalty	7700.00	Proposed Penalty	7000.00

**Proposed Penalty
Justification:**

History Increase

Abatement Details

Days to Abate	30 Wkg Days	Abatement Status	
User-entered Abatement Due Date	06/13/2016	Date Abated	
Abatement Documentation Required?	Yes	Date Verified	
Abatement Completed Description:			

MultiStep Abatement

Type/Other Type	Days to abate	User entered Abatement Due Date	Completed(status)	Verify Date

Employee Exposure

Exposure Instance	No. Exposed	Employer	Name and Address Telephone Numbers	Duration	Frequency	Proximity
a	3	Georgia Power Company	Ralph Granger (b) (7)(D) Home: Work: Personal Mobile: (b) (7)(D) (b) (7)(D) Fax:	1.00 day	30-60 Minutes	
a	3	ABB, Inc.	(b) (7)(D) Work: Personal Mobile: Fax:	2.00 day	Daily	
a	3	ABB, Inc.	(b) (7)(D) Work: Personal Mobile: Fax:	2.00 day	Daily	

20. Instance Description:	A. Hazard	B. Equipment	C. Location	D. Injury/Illness	E. Measurements
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a) **Hazards-Operation/Condition-Accident:** The Georgia Power Company does not have a tagout program which demonstrated a level of safety equivalent to that of a lockout program in that the written clearance procedure did not contain additional steps necessary for demonstrating equivalency such as the additional safety measure of removing an additional isolating circuit element or the opening of an additional disconnecting device.

The equipment that was being worked on was the Buss Bar B in the electrical cabinet. During the servicing and upgrade of the equipment the employees on the second day of the job there was a arc flash/blast incident in frame 5.

The tagout procedure used on this site was generated by two Georgia Power operations personnel. One was the Boiler Turbine Operator and the second was the Auxiliary Equipment Operator. These two used metering equipment to verify isolation and did not physically test it.

The verification of the absence of voltage in frames 1, 1A and Frame 7 was performed by the ABB technicians while under the supervision of Ralph Granger from Georgia Power. The Georgia Power representative touched the Buss and stated he did this without verifying the absence of voltage with his own equipment and without using insulated gloves.

The ABB technicians were not authorized individuals, Ralph Granger was a authorized individual and acknowledged that during interviews. As such he should have verified the absence of voltage and instructed the ABB technicians on the limits the procedure that was used.

This limit of the procedure was that the high side on frame 5 was still energized. This limit was not communicated to the ABB technicians and for some reason the ABB tech entered the frame and contacted the energized leads which resulted in an arc flash/blast incident.

This shows that the procedure used did not demonstrate an effectiveness as that of a personal lock.

b) **Equipment:** Metal-Clad Switchgear: No. G-749961 (Listed by ABB, Inc. Lake Mary, Florida 32746)

UL Listed # E-143324.

Serial Number 1VALCS01558B01

Max Volts 4.76

Main Bus Capacity 3500A

Peak withstand Current 130KA

Short-Time, Sym RMS 50KAA

The Original design date drawing indicates this was approved as installed on September 1, 2005. The materials indicate that the customer (Georgia Power) had a Purchase Order XAK2774 and 5081777 and S81303.

The one-line diagram lists several sources of power to the bus. They are as follows:

Frame 1, Transformer 648456 @ 3,000 Amps
Frame 1A, Transformer 648444 @ 3,000 Amps
Frame 1B, Transformer 648828 @ 2,000 Amps
Frame 3, Transformer 648664 @ 3,000 Amps
Frame 3, Transformer 648236 @ 3,500 Amps
Frame 5, Transformer 648108 @ 3,500 Amps

NOTE: Bus B regular power supply is through Frame 3, with Frame 5 as an alternate supply source.

c) **Location:** Plant Bowen, JBR 3/4 Building, Electrical switchgear.

d) **Injury/Illness (and Justifications for Severity and Probability):** Severity, Shock from Arc Flash/Blast.

Probability, The sub-contractor contracted the live Buss in frame 5 and Ralph Touched the Buss without PPE

e) **Measurements:** Management and employee interviews, along with one line diagrams show 4160V AC, 480 V AC, 110V AC, 110 V DC.

One Line Diagram

The one-line diagram lists several sources or potential sources of power to the Busses. They are as follows:

Frame 1, Transformer 648456 @ 3,000 Amps
Frame 1A, Transformer 648444 @ 3,000 Amps
Frame 1B, Transformer 648828 @ 2,000 Amps
Frame 3, Transformer 648664 @ 3,000 Amps
Frame 3, Transformer 648236 @ 3,500 Amps
Frame 5, Transformer 648108 @ 3,500 Amps

The Tagout (Clearance) Procedure accounted for:

Procedure 4-15-10-26-02 accounted for the following Transformer feeds to Buss B

This procedure accounted for

Frame 1, Transformer 648456 @ 3,000 Amps
Frame 1A, Transformer 648444 @ 3,000 Amps
Frame 1B, Transformer 648828 @ 2,000 Amps
Frame 3, Transformer 648236 @ 3,500 Amps
Frame 5, Transformer 648108 @ 3,500 Amps

Procedure 4-15-10-26-03 accounted for the following transformer feed to Buss B

Frame 1A, Transformer 648664 @ 3,000 Amps

Not accounted for in clearance 4-15-10-26-02

Frame 3, Transformer 648664 @ 3,000 Amps which is the Normal Power to the Buss

Frame 5, Transformer 648108 @ 3,500 Amps, still powering the high side.

**** Important Information****

1. Work occurred in Frames 1 and 1A.
2. The incident occurred in Frame 5.
3. Temporary Protective Grounds were hung in Frame 7.
4. During the walk down of the procedure power was still on in Frame 1A.

During the walk down the ABB employees found power still supplied to frame 1A. Obtained from 2 employees interviews on multiple days. The two ABB employees didn't know that it was still powered in Frame 5 on the high side.

23. Employer Knowledge: The manager Ralph Granger was aware that the ABB technicians were working on and near the Buss in the cabinets for Buss B.

This was because he coordinated the use of the tagout procedure, oversaw the work of the technicians and was generally aware of their exposure to the hazards such as the electric heater. He was the Georgia Power management official who oversaw and directed the work on site.

24. Comments: The Maintenance Manager Ralph Granger reviewed and used the clearance procedures for the protection of the two ABB employees under his direction and supervision.

25. Other Employer Information:

U.S. Department of Labor
Occupational Safety and Health Administration

Violation Worksheet

Print Date : 04/28/2016

Inspection Number	1102415
Opt. Insp. Number	

Establishment Name	Georgia Power Company				
DBA Name					
Type Of Violation	Serious	Citation Number	1	Item/Group	4 / a
Number Exposed	3	No. Instances	1	REC	
Special Enforcement?			Employer's Relationship to Hazard		
Standard	1910.269(d)(8)(ii)				
Substance Codes			Photo/Video Number		
Alleged Violation Description	<p>29 CFR 1910.269(d)(8)(ii): When servicing or maintenance is performed by a crew, craft, department, or other group, they shall use a procedure which affords the employees a level of protection equivalent to that provided by the implementation of a personal lockout or tagout device. Group lockout or tagout devices shall be used in accordance with the procedures required by paragraphs (d)(2)(iii) and (d)(2)(iv) of this section including, but not limited to, the following specific requirements:</p> <p>a. Plant Bowen, JBR 3/4 Building - The contractor's crew members who worked on the buss bar and in the switchgear did not have a procedure which afforded each exposed employee with a level of protection from shock and arc flash/blast hazards equivalent to that of a personal lock.</p>				
Recommended Abatement Action					

Penalty

Severity	High		
Severity Justification	Death from shock or serious injuries such as 2nd and 3rd degree burns and contusions from Arc Flash/Blast		
Probability	Greater		
Probability Justification	The equipment on the high side was still energized. This was unknown to the outside contractor.		
Gravity	High	Size	0%
Gravity based Penalty	7000.00	Good Faith	0%
Num Times Repeated		History	10% increase
Multiplier	1	Quick Fix	0%
Calculated Penalty	7700.00	Proposed Penalty	7000.00
Proposed Penalty Justification:	resulted in an injury to a sub contractor employee		

Abatement Details

Days to Abate	30 Wkg Days	Abatement Status	
User-entered Abatement Due Date	06/13/2016	Date Abated	
Abatement Documentation Required?	Yes	Date Verified	
Abatement Completed Description:			

MultiStep Abatement

Type/Other Type	Days to abate	User entered Abatement Due Date	Completed(status)	Verify Date
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Employee Exposure

Exposure Instance	No. Exposed	Employer	Name and Address Telephone Numbers	Duration	Frequency	Proximity
a	3	Georgia Power Company	Ralph Granger (b) (7)(D) Home: Work: Personal Mobile: (b) (7)(D) (b) (7)(D) Fax:	2.00 day	as needed	
a	3	ABB, Inc.	(b) (7)(D) Work: Personal Mobile: Fax:	2.00 day	as needed	
a	3	ABB, Inc.	(b) (7)(D) Work: Personal Mobile: Fax:	2.00 day	as needed	

20. Instance Description: A. Hazard B. Equipment C. Location D. Injury/Illness E. Measurements

a) **Hazards-Operation/Condition-Accident:** JBR 3/4 Building # The crew members that were working on the circuit and equipment did not have a procedure which afford each exposed employee with a level of protection from shock and arc flash/blast hazards equivalent to that of a personal lock.

The procedures that were used to isolate the circuit of Bus B were inadequate in that there was still power to the high side of the cabinets in at least Frame 5. This was not noted on the tagout procedure and lead to a false sense of security for the two ABB technicians who were working in frames 1 and 1A.

The procedure used did not isolate frame 5 from the energized conductors and when the ABB technician contacted the conductors it resulted in a arc flash/blast incident.

According to employees statements from ABB they thought that all of the cabinet was deenergized. As stated during the interviews they viewed the sign on page as saying that all of Bus B was deenergized. However when the ABB tech removed the 4 thumb screws and looked into frame 5 for some reason he not only contacted bare conductors, he later stated that all those conductors should have been covered with rubber shields.

The procedure that was used should have been both clear in its use and limitations and also the ABB technicians should have been notified that the high side in Frame 5 was still energized. Neither of these happened and it lead up to the arc flash/blast incident where the ABB tech was injured.

b) **Equipment:** Metal-Clad Switchgear: No. G-749961 (Listed by ABB, Inc. Lake Mary, Florida 32746)

UL Listed # E-143324.

Serial Number 1VALCS01558B01

Max Volts 4.76

Main Bus Capacity 3500A

Peak withstand Current 130KA

Short-Time, Sym RMS 50KAA

The Original design date drawing indicates this was approved as installed on September 1, 2005. The materials indicate that the customer (Georgia Power) had a Purchase Order XAK2774 and 5081777 and S81303.

c) **Location:** Plant Bowen, JBR 3/4 Building, Bus B Enclosures

d) **Injury/Illness (and Justifications for Severity and Probability):** Death from shock or burns from arc flash/blast incident.

e) **Measurements:** Management and employee interviews, along with one line diagrams show 4160V AC, 480 V AC, 110V AC, 110 V DC.

One Line Diagram

The one-line diagram lists several sources or potential sources of power to the Busses. They are as follows:

Frame 1, Transformer 648456 @ 3,000 Amps

Frame 1A, Transformer 648444 @ 3,000 Amps

Frame 1B, Transformer 648828 @ 2,000 Amps

Frame 3, Transformer 648664 @ 3,000 Amps

Frame 3, Transformer 648236 @ 3,500 Amps

Frame 5, Transformer 648108 @ 3,500 Amps

The Tagout (Clearance) Procedure accounted for:

Procedure 4-15-10-26-02 accounted for the following Transformer feeds to Buss B

This procedure accounted for

Frame 1, Transformer 648456 @ 3,000 Amps

Frame 1A, Transformer 648444 @ 3,000 Amps

Frame 1B, Transformer 648828 @ 2,000 Amps

Frame 3, Transformer 648236 @ 3,500 Amps

Frame 5, Transformer 648108 @ 3,500 Amps

Procedure 4-15-10-26-03 accounted for the following transformer feed to Buss B

Frame 1A, Transformer 648664 @ 3,000 Amps

Not accounted for in clearance 4-15-10-26-02

Frame 3, Transformer 648664 @ 3,000 Amps which is the Normal Power to the Buss

Frame 5, Transformer 648108 @ 3,500 Amps, still powering the high side.

**** Important Information ****

1. Work occurred in Frames 1 and 1A.
2. The incident occurred in Frame 5.
3. Temporary Protective Grounds were hung in Frame 7.
4. During the walk down of the procedure power was still on in Frame 1A.

During the walk down the ABB employees found power still supplied to frame 1A. Obtained from 2 employees interviews on multiple days. The two ABB employees didn't know that it was still powered in Frame 5 on the high side.

23. Employer Knowledge: The employer had a contract with the ABB company to modify the two existing frames in the Bus B cabinets. In doing so the Managers in Georgia Power were aware of the hazards, exposure and presence of the sub contractor employees along with their own employees during the work process as it was scheduled.

24. Comments: The employer stipulates the subcontractor employee misconduct defense. However in reviewing the paperwork and interviewing the employees from both companies this is a hard defense to justify. Not only did Georgia Power personnel miss shutting off energized conductors prior to work in cubicle 1A they also fought the sub contractor in having to hanging temporary protective grounds. This along with not indicating the limits of the tagout (Clearances) as to what was deenergized and what was energized left too many unknowns to say that the employees of ABB were committing a mistake.

If just in reading the Georgia Power clearances 02 and 03 one would assume that work was only going to be occurring in Frame 1A. However from employee interviews and records obtained during the inspection it is known that work was on going in frames 1 and 1A but not indicated on the clearance sheets. Too blame the ABB employees for misconduct means that Georgia Power does not take responsibility for not first identifying and reenergizing the power in frame 1A and then fighting with the sub contractor employees and managers over the hanging of protective grounds.

25. Other Employer Information: The fault current values in the table below are the worst-case values that were used to create the arcflash labels that are on the bus. 3/4 JBR 4KV BUS B Frames Bolted Fault Current (kA)

Frames and available fault Current

1 40.443,

1A 25.578

1B 40.443

2 40.443

3 55.324 4

40.443

5 67.089

6 40.443 7 40.443

8 (Front-Top) 40.442

8 (Front-Bottom) 40.442

9 (Front-Top) 40.442

9 (Front-Bottom) 40.442

8 (Rear-Top) 40.442

8 (Rear-Bottom) 40.442

9 (Rear-Top) 40.442

9 (Rear-Bottom) 40.442

U.S. Department of Labor
Occupational Safety and Health Administration

Violation Worksheet

Print Date : 04/28/2016

		Inspection Number		1102415	
		Opt. Insp. Number			
Establishment Name	Georgia Power Company				
DBA Name					
Type Of Violation	Serious	Citation Number	1	Item/Group	4 / b
Number Exposed	3	No. Instances	1	REC	
Special Enforcement?			Employer's Relationship to Hazard		
Standard	1910.269(d)(8)(ii)(B)				
Substance Codes			Photo/Video Number		
Alleged Violation Description	<p>29 CFR 1910.269(d)(8)(ii)(B): Provision shall be made for the authorized employee to ascertain the exposure status of all individual group members with regard to the lockout or tagout of the machine or equipment;</p> <p>a. Plant Bowen, JBR 3/4 Building - The controlling employers tagout (clearance) procedure did not provide a provision to ensure that the contract primary authorized employee was provided an opportunity to review and inspect all energy isolating point, in that the contract authorized employee was not allowed to view and verify low voltage energy source isolation points.</p>				
Recommended Abatement Action					

Penalty

Severity	High		
Severity Justification	Death from shock or serious injuries such as 2nd and 3rd degree burns and contusions from Arc Flash/Blast		
Probability	Greater		
Probability Justification	The equipment on the high side was still energized. This was unknown to the outside contractor.		
Gravity	High	Size	0%
Gravity based Penalty	7000.00	Good Faith	0%
Num Times Repeated		History	10% increase
Multiplier	1	Quick Fix	0%
Calculated Penalty	0.00	Proposed Penalty	0.00
Proposed Penalty Justification:			

Abatement Details

Days to Abate	30 Wkg Days	Abatement Status	
User-entered Abatement Due Date	06/13/2016	Date Abated	
Abatement Documentation Required?	Yes	Date Verified	
Abatement Completed Description:			

MultiStep Abatement

Type/Other Type	Days to abate	User entered Abatement Due Date	Completed(status)	Verify Date
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Employee Exposure

Exposure Instance	No. Exposed	Employer	Name and Address Telephone Numbers	Duration	Frequency	Proximity
a	5	Georgia Power Company	Ralph Granger (b) (7)(D) Home: Work: Personal Mobile: (b) (7)(D) (b) (7)(D) Fax:	3.00 day		Touched the Conductors
a	5	ABB, Inc.	(b) (7)(D) Work: Personal Mobile: Fax:	2.00 day		Touched the Conductors
a	5	ABB, Inc.	(b) (7)(D) Work: Personal Mobile: Fax:	2.00 day		Touched the Conductors
a	5	Georgia Power Company	(b) (7)(D) Home: Work: Personal Mobile: Fax:	3.00 day		Executed the Clearance

a	5	Georgia Power Company	(b) (7)(D) Home: Work: Personal Mobile: Fax:	3.00 day		Generated the Clearance
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20. **Instance Description:** A. Hazard B. Equipment C. Location D. Injury/Illness E. Measurements

a) **Hazards-Operation/Condition-Accident:** JBR 3/4 Building II The controlling employers tagout (clearance) procedure did not provide a provision so ensuring that a primary authorized employee was vested with the responsibility for ensuring that the tagout procedure would actually protect the contract authorize employees after problems were found with the isolation of equipment on Bus B.

The walkthrough of the Bus B cabinets happened with the Georgia Power management coordinator Ralph Granger and (b) (7)(D) When the walk down of clearance 02 occurred Gloser an ABB technicians discovered that Frame 1A still was energized.

Even when finding this major error the company only generated a second clearance and still didn't disclose to the ABB technicians that the high side of Frame 5 was still energized.

The work was occurring in frame 1 and 1A. The temporary protective grounds were hung in frame 7. Therefore the ABB technicians assumed that everything between frame 7 and Frames 1 and 1A was deenergized and protected. However when the ABB technicians entered Frame 5 it resulted in an arc flash/blast.

b) **Equipment:** Metal-Clad Switchgear: No. G-749961 (Listed by ABB, Inc. Lake Mary, Florida 32746)

UL Listed # E-143324.

Serial Number 1VALCS01558B01

Max Volts 4.76

Main Bus Capacity 3500A

Peak withstand Current 130KA

Short-Time, Sym RMS 50KAA

The Original design date drawing indicates this was approved as installed on September 1, 2005. The materials indicate that the customer (Georgia Power) had a Purchase Order XAK2774 and 5081777 and S81303.

c) **Location:** Plant Bowen, JBR 3/4 Building, Bus B.

d) **Injury/Illness (and Justifications for Severity and Probability):** Severity, Shock from Arc Flash/Blast.

Probability, The sub-contractor contracted the live Buss in frame 5 and Ralph Touched the Buss without PPE

e) **Measurements:** Management and employee interviews, along with one line diagrams show 4160V AC, 480 V AC, 110V AC, 110 V DC.

One Line Diagram

The one-line diagram lists several sources or potential sources of power to the Busses. They are as follows:

Frame 1, Transformer 648456 @ 3,000 Amps
Frame 1A, Transformer 648444 @ 3,000 Amps
Frame 1B, Transformer 648828 @ 2,000 Amps
Frame 3, Transformer 648664 @ 3,000 Amps
Frame 3, Transformer 648236 @ 3,500 Amps
Frame 5, Transformer 648108 @ 3,500 Amps

The Tagout (Clearance) Procedure accounted for:

Procedure 4-15-10-26-02 accounted for the following Transformer feeds to Buss B

This procedure accounted for

Frame 1, Transformer 648456 @ 3,000 Amps
Frame 1A, Transformer 648444 @ 3,000 Amps
Frame 1B, Transformer 648828 @ 2,000 Amps
Frame 3, Transformer 648236 @ 3,500 Amps
Frame 5, Transformer 648108 @ 3,500 Amps

Procedure 4-15-10-26-03 accounted for the following transformer feed to Buss B

Frame 1A, Transformer 648664 @ 3,000 Amps

Not accounted for in clearance 4-15-10-26-02

Frame 3, Transformer 648664 @ 3,000 Amps which is the Normal Power to the Buss

Frame 5, Transformer 648108 @ 3,500 Amps, still powering the high side.

**** Important Information****

1. Work occurred in Frames 1 and 1A.

2. The incident occurred in Frame 5.
3. Temporary Protective Grounds were hung in Frame 7.
4. During the walk down of the procedure power was still on in Frame 1A.

During the walk down the ABB employees found power still supplied to frame 1A. Obtained from 2 employees interviews on multiple days. The two ABB employees didn't know that it was still powered in Frame 5 on the high side.

23. Employer Knowledge: The host employer was responsible for performing all safety related tagout procedures on site. As such they were aware when and how the ABB technicians were working and their exposure to the hazards.

24. Comments: Georgia Power at the start of the inspection was stating they were taking the position that this was an affirmative or Unpreventable Employee Misconduct.

The affirmative defense of Unpreventable Employee Misconduct || Isolated Incident, the employer must show that it:

1. Established a work rule adequate to prevent the violation;

For the host employer to show that there was a work rule they have to one established. Here they have a requirement that when maintenance is performed there has to be a tagout procedure used. Here they used a clearance but both companies disagreed on the use of temporary protective grounds. Several heated discussions were held on site between the ABB technicians who refused to work without the grounds and the Georgia Power representative Ralph Granger refused to install them. It wasn't until they refused work and the ABB Manager Steve Creekmur called and told Ralph that work was not going to occur that the grounds were installed.

2. Effectively communicated the rule to employees;

The tagout procedure with its limitations was not adequately communicated to the ABB technicians. According to the written clearance work was only to occur on Frame 1A. However, the written contract called for both 1 and 1A to be retrofitted.

Secondly the written clearance didn't indicate that the high side of the cabinets for Bus B were still energized. This lack of information directly leads to the arc flash/blast incident.

Third the ABB technicians were only handed the one-line diagram and a copy of the sub clearance (tagout procedure) signing sheet. Reading the plain language of this it states that was for 4160 V JBR ¾ Bus B. According to employee interviews with the ABB technicians this meant to them that the entire cabinet containing Bus B was deenergized.

Georgia Power personnel did not verbally communicate the fact that part of Bus B was still energized.

Georgia Power personnel still did not properly deenergize the cabinets for Bus B even though during the walk down with the Georgia Power rep Ralph Granger and the ABB Technicians found power still supplied to Bus B via Frame 1A.

3. Established methods for discovering violations of work rules, and yet did not know about an isolated violation of the work rules; and

There were no checks done of the crew.

4. Established effective enforcement of the rule when violations are discovered.

For the host to enforce the rule they have to effectively communicate the rule which they didn't. The confluence of missteps resulted in the ABB technicians thinking that the entire Bus in the cabinets was deenergized

The issue with missing the energized feeder into frame 1A, The issue that resulted in ABB almost walking off the job due to the use of temporary protective grounds and the fact that Georgia Power didn't inform the ABB technicians that power was still energized in frame 5 high side means that no effective communication had occurred and even if they had disciplined or thrown someone off the site it would have been for breaking an imaginary rule which at the time of the accident, didn't exist.

25. Other Employer Information: The fault current values in the table below are the worst-case values that were used to create the arcflash labels that are on the bus. 3/4 JBR 4KV BUS B Frames Bolted Fault Current (kA)

Frames and available fault Current

1 40.443,

1A 25.578

1B 40.443

2 40.443

3 55.324 4

40.443

5 67.089

6 40.443 7 40.443

8 (Front-Top) 40.442

8 (Front-Bottom) 40.442

9 (Front-Top) 40.442

9 (Front-Bottom) 40.442

8 (Rear-Top) 40.442

8 (Rear-Bottom) 40.442

9 (Rear-Top) 40.442

9 (Rear-Bottom) 40.442

U.S. Department of Labor
Occupational Safety and Health Administration

Violation Worksheet

Print Date : 04/28/2016

				Inspection Number	1102415
				Opt. Insp. Number	
Establishment Name	Georgia Power Company				
DBA Name					
Type Of Violation	Serious	Citation Number	1	Item/Group	5 /
Number Exposed	3	No. Instances	1	REC	
Special Enforcement?			Employer's Relationship to Hazard		
Standard	1910.269(n)(6)(i)				
Substance Codes			Photo/Video Number		
Alleged Violation Description	<p>29 CFR 1910.269(n)(6)(i): The employer shall ensure that, when an employee attaches a ground to a line or to equipment, the employee attaches the ground-end connection first and then attaches the other end by means of a live-line tool. For lines or equipment operating at 600 volts or less, the employer may permit the employee to use insulating equipment other than a live-line tool if the employer ensures that the line or equipment is not energized at the time the ground is connected or if the employer can demonstrate that each employee is protected from hazards that may develop if the line or equipment is energized.</p> <p>a. Plant Bowen, JBR 3/4 Building - The employer did not ensure that when an employee attached a personal protective grounding cable to previously energized equipment, such as the buss bar and switchgear, a live-line tool or equivalent PPE was used in lieu of installation by hand.</p>				
Recommended Abatement Action					

Penalty

Severity	High		
Severity Justification	Death from Shock or Arc Flash/Blast. Or Multiple Burns from Arc Flash/Blast		
Probability	Greater		
Probability Justification	The employee touched the energized Buss.		
Gravity	High	Size	0%
Gravity based Penalty	7000.00	Good Faith	0%
Num Times Repeated		History	10% Increase
Multiplier	1	Quick Fix	0%
Calculated Penalty	7700.00	Proposed Penalty	7000.00
Proposed Penalty Justification:	History increase		

Abatement Details

Days to Abate	30 Wkg Days	Abatement Status	
User-entered Abatement Due Date	06/13/2016	Date Abated	
Abatement Documentation Required?	Yes	Date Verified	
Abatement Completed Description:			

MultiStep Abatement

Type/Other Type	Days to abate	User entered Abatement Due Date	Completed(status)	Verify Date

Employee Exposure

Exposure Instance	No. Exposed	Employer	Name and Address Telephone Numbers	Duration	Frequency	Proximity
a	3	ABB, Inc.	(b) (7)(D) Home: 615-125-5555 Work: Personal Mobile: Fax:	2.00 day	Daily	
a	3	ABB, Inc.	(b) (7)(D) Work: Personal Mobile: Fax:	2.00 day	Daily	
a	3	Georgia Power Company	Ralph Granger (b) (7)(D) Home: Work: Personal Mobile: (b) (7)(D) (b) (7)(D) Fax:	1.00 day	30-60 Minutes total	

20. **Instance Description:** A. Hazard B. Equipment C. Location D. Injury/Illness E. Measurements

a) **Hazards-Operation/Condition-Accident:** The employer did not ensure that when an employee attached a personal protective grounding cable to previously energized equipment, such as the buss bar and switchgear, a live-line tool or equivalent PPE was used in lieu of installation by hand.

This instance is confusing on the differing statements as to when and what happened. What is clear is that the grounding cable was attached and touched by Ralph Granger without him using either a live line tool or PPE. This was because he was not issued either PPE or a voltage detector so he relied on himself watching and observing the ABB technicians check for the absence of voltage.

During the interview with Ralph Granger he stated that he had touched the 4160V 3000 Amp Buss and had done so because it was "dead" or deenergized.

b) **Equipment:** Metal-Clad Switchgear: No. G-749961 (Listed by ABB, Inc. Lake Mary, Florida 32746)

UL Listed # E-143324.

Serial Number 1VALCS01558B01

Max Volts 4.76

Main Bus Capacity 3500A

Peak withstand Current 130KA

Short-Time, Sym RMS 50KAA

The Original design date drawing indicates this was approved as installed on September 1, 2005. The materials indicate that the customer (Georgia Power) had a Purchase Order XAK2774 and 5081777 and S81303.

The one-line diagram lists several sources of power to the bus. They are as follows:

Frame 1, Transformer 648456 @ 3,000 Amps

Frame 1A, Transformer 648444 @ 3,000 Amps

Frame 1B, Transformer 648828 @ 2,000 Amps

Frame 3, Transformer 648664 @ 3,000 Amps

Frame 3, Transformer 648236 @ 3,500 Amps

Frame 5, Transformer 648108 @ 3,500 Amps

NOTE: Bus B regular power supply is through Frame 3, with Frame 5 as an alternate supply source.

c) **Location:** Plant Bowen, JBR 3/4 Building, Buss B cabinets.

d) **Injury/Illness (and Justifications for Severity and Probability):** Severity, Shock from Arc Flash/Blast.

Probability, The sub-contractor contracted the live Buss in frame 5 and Ralph Touched the Buss without PPE

e) **Measurements:** Management and employee interviews, along with one line diagrams show 4160V AC, 480 V AC, 110V AC, 110 V DC.

One Line Diagram

The one-line diagram lists several sources or potential sources of power to the Busses. They are as follows:

Frame 1, Transformer 648456 @ 3,000 Amps

Frame 1A, Transformer 648444 @ 3,000 Amps

Frame 1B, Transformer 648828 @ 2,000 Amps

Frame 3, Transformer 648664 @ 3,000 Amps

Frame 3, Transformer 648236 @ 3,500 Amps

Frame 5, Transformer 648108 @ 3,500 Amps

The Tagout (Clearance) Procedure accounted for:

Procedure 4-15-10-26-02 accounted for the following Transformer feeds to Buss B

This procedure accounted for

Frame 1, Transformer 648456 @ 3,000 Amps

Frame 1A, Transformer 648444 @ 3,000 Amps

Frame 1B, Transformer 648828 @ 2,000 Amps

Frame 3, Transformer 648236 @ 3,500 Amps

Frame 5, Transformer 648108 @ 3,500 Amps

Procedure 4-15-10-26-03 accounted for the following transformer feed to Buss B

Frame 1A, Transformer 648664 @ 3,000 Amps

Not accounted for in clearance 4-15-10-26-02

Frame 3, Transformer 648664 @ 3,000 Amps which is the Normal Power to the Buss

Frame 5, Transformer 648108 @ 3,500 Amps, still powering the high side.

**** Important Information****

1. Work occurred in Frames 1 and 1A.
2. The incident occurred in Frame 5.
3. Temporary Protective Grounds were hung in Frame 7.
4. During the walk down of the procedure power was still on in Frame 1A.

During the walk down the ABB employees found power still supplied to frame 1A. Obtained from 2 employees interviews on multiple days. The two ABB employees didn't know that it was still powered in Frame 5 on the high side.

23. Employer Knowledge: The employee exposed here was a manager. He knew of his and the sub contractor exposure to the hazards, conditions and was in a position to correct the condition.

Ralph Granger the Maintenance Manager who oversaw the work of the sub contractors technicians was aware of the hazards, conditions and exposure to the hazards when working on or near the Buss B Cabinets.

24. Comments: The employee interviews with the ABB technicians state that they left for lunch and came back to see the grounds installed. When (b) (7)(D) tested the grounds by grabbing them they came off and he had to reinstall it. According to their employee statements Ralph said "that's the best I could do without tools"

The interview with Ralph Granger he stated that the ABB technicians installed the grounds and he tested and tightened them down.

Regardless both statements are consistent in that Ralph Granger either installed or help install the grounds without a live line tool.

25. Other Employer Information:

U.S. Department of Labor
Occupational Safety and Health Administration

Violation Worksheet

Print Date : 04/28/2016

Inspection Number		1102415	
Opt. Insp. Number			
Establishment Name	Georgia Power Company		
DBA Name			
Type Of Violation	Repeat - Serious	Citation Number	2
Number Exposed	5	No. Instances	1
Special Enforcement?		Employer's Relationship to Hazard	
Standard	1910.269(d)(2)(iv)(B)		
Substance Codes		Photo/Video Number	
Alleged Violation Description	<p>29 CFR 1910.269(d)(2)(iv)(B): Specific procedural steps for shutting down, isolating, blocking and securing machines or equipment to control hazardous energy;</p> <p>a. Plant Bowen, JBR 3/4 Building, Bus B - The employer did not develop and issue a specific clearance (tagout procedure) which included specific procedural steps necessary for the hanging of temporary protective grounds in Frame #7</p> <p>Georgia Power Company was previously cited for a violation of this Occupational Safety and Health Standard 29 CFR 1910.268(d)(2)(iv)(B), which was contained in OSHA Inspection Number 900009, Citation Number 1, Item Number 6b and was affirmed as a final order on December 5, 2014, with respect to a workplace located at Plant Bowen, 317 Covered Bridge Rd SW, Cartersville GA 30120.</p>		
Recommended Abatement Action			

Penalty

Severity	High		
Severity Justification	Death from shock or serious injuries such as 2nd and 3rd degree burns and contusions from Arc Flash/Blast		
Probability	Greater		
Probability Justification	The equipment on the high side was still energized. This was unknown to the outside contractor.		
Gravity	High	Size	0%
Gravity based Penalty	7000.00	Good Faith	0%
Num Times Repeated	1	History	10% increase
Multiplier	5	Quick Fix	0%
Calculated Penalty	38500.00	Proposed Penalty	38500.00
Proposed Penalty			

Justification:

Abatement Details

Days to Abate	30 Wkg Days	Abatement Status	
User-entered Abatement Due Date	06/13/2016	Date Abated	
Abatement Documentation Required?	Yes	Date Verified	
Abatement Completed Description:			

MultiStep Abatement

Type/Other Type	Days to abate	User entered Abatement Due Date	Completed(status)	Verify Date
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Employee Exposure

Exposure Instance	No. Exposed	Employer	Name and Address Telephone Numbers	Duration	Frequency	Proximity
a	5	ABB, Inc.	(b) (7)(D) Work: Personal Mobile: Fax:	2.00 day	as needed	
a	5	ABB, Inc.	(b) (7)(D) work: Personal Mobile: Fax:	2.00 day	as needed	
a	5	Georgia Power Company	Ralph Granger (b) (7)(D) Home: Work: Personal Mobile: (b) (7)(D) (b) (7)(D) Fax:	2.00 day	as needed	
a	5	Georgia Power	(b) (7)(D)	2.00 day	as needed	

		Company	Home: Work: Personal Mobile: Fax:			
a	5	Georgia Power Company	(b) (7)(D) Home: Work: Personal Mobile: Fax:	2.00 day	as needed	

20. Instance Description: A. Hazard B. Equipment C. Location D. Injury/Illness E. Measurements

a) Hazards-Operation/Condition-Accident: JBR 3/4 Building, Bus B II The tagout procedure did not specify what specific procedural steps were necessary for the hanging of temporary protective grounds.

At issue here is the fact that Georgia Power retains control of lockout/tagout on site by their own choice. As such they control all procedure and have sub contractors sign onto their written and executed procedures.

ABB, Inc. has a policy that requires that all power be removed from the cabinets that has work on going. They also have a policy that requires that temporary protective grounds be hung when work is on going on the conductors.

In this job Georgia Power didn't want to hang grounds but did after the manager Steve Creekmur stated he would have his employees walk off the site if grounds were not hung. Known to all is the fact that ABB has been on site before and requires that all sources of power be deenergized and grounds be hung on the conductors. Additionally Steve Creekmur knew the people on the Georgia Power site personally because he used to be a manager on site. It took him talking with Ralph Granger to get Georgia Power to hang the grounds.

According to the interview with the ABB technicians on site Ralph Granger then went and put on the grounds himself. However the internal Georgia Power procedure was to generate a separate TPG (Temporary Protective Ground) sign on procedure which was indicated at the top of the sign on sheet for the Georgia Power personnel. There was no sign on sheet for the ABB personnel.

Also at issue is Ralph Grangers refusal to hang a TPG for the ABB technicians. This contradicts the Georgia Power TPG program which in section 4.2 says that "TPG's are installed on certain electrical equipment when maintenance personnel will come in direct contact with previously energized components." The initial refusal of the manager Ralph Granger contradicts the written program.

Additionally the TPG program in section 4.2 list several types of equipment that TPG's are hung on and they include: "Switchgear bus, or motor control centers (MCC) does not require TPG's unless employees come in direct contact with the buss work.

Further down in the section it states that TPG's are at the direction and discretion of the maintenance personnel involved in the work.

After Ralph Granger installed the TPG's, the ABB technicians came back from lunch and checked the grounds. Ralph had done such a bad job of installing the grounds that when they were checked by (b) (7)(D) the ground came off in his hand when he pulled on it.. Note the TPG program states that grounds should be mechanically installed, aka with a wrench and should be secured.

In summary the TPG usage should have been designated on the tagout procedure and not on the sign in sheet.

b) **Equipment:** Metal-Clad Switchgear: No. G-749961 (Listed by ABB, Inc. Lake Mary, Florida 32746)

UL Listed # E-143324.

Serial Number 1VALCS01558B01

Max Volts 4.76

Main Bus Capacity 3500A

Peak withstand Current 130KA

Short-Time, Sym RMS 50KAA

c) **Location:** Plant Bowen, JBR 3/4 Building.

d) **Injury/Illness (and Justifications for Severity and Probability):** Severity, Shock from Arc Flash/Blast.

Probability, The sub-contractor contracted the live Buss in frame 5 and Ralph Touched the Buss without PPE

e) **Measurements:** Management and employee interviews, along with one line diagrams show 4160V AC, 480 V AC, 110V AC, 110 V DC.

23. **Employer Knowledge:** The employer had coordinated, oversaw and checked the work of the two ABB technicians on site. As such they were aware of the conditions, hazards and exposure to the hazards inside the switchgear.

24. **Comments:** Employer History:

The Georgia Power Company was previously cited for a violation of this occupational safety and health standard or its equivalent standard 29 CFR 1910.268(d)(2)(iv)(B), which was contained in OSHA inspection number 900009, citation number 01, item number 06B and was affirmed as a final order on December 5, 2014, with respect to a workplace located at Plant Bowen, 317 Covered Bridge Rd SW, Cartersville GA 30120.

25. **Other Employer Information:** The fault current values in the table below are the worst-case values that were used to create the arcflash labels that are on the bus. 3/4 JBR 4KV BUS B Frames Bolted Fault Current (kA)

Frames and available fault Current

1 40.443,

1A 25.578

1B 40.443

2 40.443

3 55.324 4

40.443

5 67.089

6 40.443 7 40.443

8 (Front-Top) 40.442

8 (Front-Bottom) 40.442

9 (Front-Top) 40.442

9 (Front-Bottom) 40.442

8 (Rear-Top) 40.442

8 (Rear-Bottom) 40.442

9 (Rear-Top) 40.442

9 (Rear-Bottom) 40.442

The Clearances used are 4-15-10-26-03 and 4-15-10-26-02. Clearance 02 indicates a TPG was hung and a separate sign on sheet was attached to the clearance. Clearance 03 indicates that TPG were hung but no sign on sheet was attached to the clearance.

The company submitted TPG procedure calls for TPG sheets to be attached to all issued clearances

U.S. Department of Labor
Occupational Safety and Health Administration

Violation Worksheet

Print Date : 04/28/2016

				Inspection Number		1102415	
				Opt. Insp. Number			
Establishment Name	Georgia Power Company						
DBA Name							
Type Of Violation	Repeat - Serious	Citation Number	2	Item/Group	2 /		
Number Exposed	5	No. Instances	1	REC			
Special Enforcement?				Employer's Relationship to Hazard			
Standard	1910.269(d)(6)(vii)						
Substance Codes				Photo/Video Number			
Alleged Violation Description	<p>29 CFR 1910.269(d)(6)(vii): Before starting work on machines or equipment that have been locked out or tagged out, the authorized employee shall verify that isolation and deenergizing of the machine or equipment have been accomplished. If normally energized parts will be exposed to contact by an employee while the machine or equipment is deenergized, a test shall be performed to ensure that these parts are deenergized.</p> <p>a. Plant Bowen, JBR 3/4 Building, Buss B - Prior to starting work the Georgia Power authorized employee(s) did not verify the absence of voltage, using a test instrument, on the equipment or circuits located in the switchgear cabinet for Bus B.</p> <p>Georgia Power Company was previously cited for a violation of this Occupational Safety and Health Standard 29 CFR 1910.268(d)(6)(vii), which was contained in OSHA Inspection Number 900009, Citation Number 1, Item Number 14b and was affirmed as a final order on December 5, 2014, with respect to a workplace located at Plant Bowen, 317 Covered Bridge Rd SW, Cartersville GA 30120.</p>						
Recommended Abatement Action							

Penalty

Severity	High		
Severity Justification	Death from shock or serious injuries such as 2nd and 3rd degree burns and contusions from Arc Flash/Blast		
Probability	Greater		
Probability Justification	The equipment on the high side was still energized. This was unknown to the outside contractor.		
Gravity	High	Size	0%
Gravity based Penalty	7000.00	Good Faith	0%
Num Times Repeated	1	History	10% increase
Multiplier	5	Quick Fix	0%

Calculated Penalty	38500.00	Proposed Penalty	38500.00
Proposed Penalty Justification:			

Abatement Details

Days to Abate	30 Wkg Days	Abatement Status	
User-entered Abatement Due Date	06/13/2016	Date Abated	
Abatement Documentation Required?	Yes	Date Verified	
Abatement Completed Description:			

MultiStep Abatement

Type/Other Type	Days to abate	User entered Abatement Due Date	Completed(status)	Verify Date
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Employee Exposure

Exposure Instance	No. Exposed	Employer	Name and Address Telephone Numbers	Duration	Frequency	Proximity
a	5	Georgia Power Company	Ralph Granger (b) (7)(D) Home: Work: Personal Mobile: (b) (7)(D) (b) (7)(D) Fax:	5.00 day	as needed	
a	5	Georgia Power Company	(b) (7)(D) Home: Work: Personal Mobile: Fax:	5.00 day	as needed	
a	5	Georgia Power Company	(b) (7)(D) Home: Work: Personal Mobile: Fax:	5.00 day	as needed	
a	5	ABB, Inc.	(b) (7)(D)	2.00 day	as needed	

			Home: (b) (7)(D) Work: Personal Mobile: Fax:			
a	5	ABB, Inc.	David Garrison (b) (7)(D) Work: Personal Mobile: Fax:	2.00 day	as needed	

20. **Instance Description:** A. Hazard B. Equipment C. Location D. Injury/Illness E. Measurements

a) **Hazards-Operation/Condition-Accident:** JBR 3/4 Building, Bus B II - Prior to starting work the authorized employee(s) did not verify the absence of voltage on the equipment or circuits located in the switchgear cabinet for Bus B.

The Georgia Power personnel generated and executed the tagout (clearance) procedure. The BTO and AEO both executed the tagout

b) **Equipment:** Equipment involved:

Metal-Clad Switchgear: No. G-749961 (Listed by ABB, Inc. Lake Mary, Florida 32746)

UL Listed # E-143324.

Serial Number 1VALCS01558B01

Max Volts 4.76

Main Buss Capacity 3500A

Peak withstand Current 130KA

Short-Time, Sym RMS 50KAA

The Original design date drawing indicates this was approved as installed on September 1, 2005. The materials indicate that the customer (Georgia Power) had a Purchase Order XAK2774 and 5081777 and S81303.

NOTE: Buss B regular power supply is through Frame 3, with Frame 5 as an alternate supply source.

c) **Location:** Plant Bowen, JBR 3/4 Building.

d) **Injury/Illness (and Justifications for Severity and Probability):** Severity, Shock from Arc Flash/Blast.

Probability, The sub-contractor contracted the live Buss in frame 5 and (b) (7)(D) Touched the Buss without PPE

e) **Measurements:** Management and employee interviews, along with one line diagrams show 4160V AC, 480 V AC, 110V AC, 110 V DC.

One Line Diagram

The one-line diagram lists several sources or potential sources of power to the Busses. They are as follows:

Frame 1, Transformer 648456 @ 3,000 Amps

Frame 1A, Transformer 648444 @ 3,000 Amps

Frame 1B, Transformer 648828 @ 2,000 Amps

Frame 3, Transformer 648664 @ 3,000 Amps

Frame 3, Transformer 648236 @ 3,500 Amps

Frame 5, Transformer 648108 @ 3,500 Amps

The Tagout (Clearance) Procedure accounted for:

Procedure 4-15-10-26-02 accounted for the following Transformer feeds to Buss B

This procedure accounted for

Frame 1, Transformer 648456 @ 3,000 Amps

Frame 1A, Transformer 648444 @ 3,000 Amps

Frame 1B, Transformer 648828 @ 2,000 Amps

Frame 3, Transformer 648236 @ 3,500 Amps

Frame 5, Transformer 648108 @ 3,500 Amps

Procedure 4-15-10-26-03 accounted for the following transformer feed to Buss B

Frame 1A, Transformer 648664 @ 3,000 Amps

Not accounted for in clearance 4-15-10-26-02

Frame 3, Transformer 648664 @ 3,000 Amps which is the Normal Power to the Buss

Frame 5, Transformer 648108 @ 3,500 Amps, still powering the high side.

**** Important Information****

1. Work occurred in Frames 1 and 1A.
2. The incident occurred in Frame 5.
3. Temporary Protective Grounds were hung in Frame 7.
4. During the walk down of the procedure power was still on in Frame 1A.

During the walk down the ABB employees found power still supplied to frame 1A. Obtained from 2 employees interviews on multiple days. The two ABB employees didn't know that it was still powered in Frame 5 on the high side.

23. Employer Knowledge: The employer's Manager Ralph Granger coordinated the work with the sub contractor technicians. This work was schedule to occur during a shutdown. As such Georgia Power was aware of the hazards, exposure and exposure to the hazards.

24. Comments:

25. Other Employer Information: The fault current values in the table below are the worst-case values that were used to create the arcflash labels that are on the bus. 3/4 JBR 4KV BUS B Frames Bolted Fault Current (kA)

Frames and available fault Current

1	40.443,
1A	25.578
1B	40.443
2	40.443
3	55.324 4
	40.443
5	67.089
6	40.443 7 40.443
8 (Front-Top)	40.442
8 (Front-Bottom)	40.442
9 (Front-Top)	40.442
9 (Front-Bottom)	40.442
8 (Rear-Top)	40.442
8 (Rear-Bottom)	40.442
9 (Rear-Top)	40.442
9 (Rear-Bottom)	40.442

U.S. Department of Labor
Occupational Safety and Health Administration

Violation Worksheet

Print Date : 04/28/2016

				Inspection Number	1102415
				Opt. Insp. Number	
Establishment Name	Georgia Power Company				
DBA Name					
Type Of Violation	Other-than-Serious	Citation Number	3	Item/Group	1 /
Number Exposed	6	No. Instances	5	REC	
Special Enforcement?			Employer's Relationship to Hazard		
Standard	1910.269(d)(2)(ii)(C)				
Substance Codes			Photo/Video Number		
Alleged Violation Description	<p>29 CFR 1910.269(d)(2)(ii)(C): After November 1, 1994, whenever replacement or major repair, renovation, or modification of a machine or equipment is performed, and whenever new machines or equipment are installed, energy isolating devices for such machines or equipment shall be designed to accept a lockout device.</p> <p>a. Plant Bowen, JBR 3/4 Building Bus B - The employer used tagout to identify energy source isolation at the point where a lockout device should have been used to control potentially hazardous energy points on electrical equipment manufactured and installed in 2005-2006 that was not capable of being locked out.</p>				
Recommended Abatement Action					

Penalty

Severity	Minimal		
Severity Justification	Death from shock or serious injuries such as 2nd and 3rd degree burns and contusions from Arc Flash/Blast		
Probability	Lesser		
Probability Justification	The equipment on the high side was still energized. This was unknown to the outside contractor.		
Gravity		Size	0%
Gravity based Penalty	0.00	Good Faith	0%
Num Times Repeated		History	10% increase
Multiplier	1	Quick Fix	0%
Calculated Penalty	0.00	Proposed Penalty	0.00
Proposed Penalty Justification:	History increase		

Abatement Details

Days to Abate	30 Wkg Days	Abatement Status	
User-entered Abatement Due Date	06/13/2016	Date Abated	
Abatement Documentation Required?	Yes	Date Verified	
Abatement Completed Description:			

MultiStep Abatement

Type/Other Type	Days to abate	User entered Abatement Due Date	Completed(status)	Verify Date
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Employee Exposure

Exposure Instance	No. Exposed	Employer	Name and Address Telephone Numbers	Duration	Frequency	Proximity
a	6	ABB, Inc.	David Garrison (b) (7)(D) Work: Personal Mobile: Fax:	2.00 day	as needed	
a	6	Georgia Power Company	John Edwards (b) (7)(D) Work: Personal Mobile: Fax:	4.00 day	as needed	
a	6	Georgia Power Company	Ralph Granger (b) (7)(D) Home: Work: Personal Mobile: (b) (7)(D) (b) (7)(D) Fax:	4.00 day	as needed	
a	6	Georgia Power Company	(b) (7)(D) Home: Work: Personal Mobile: Fax:	4.00 day	as needed	

a	6	Georgia Power Company	(b) (7)(D) Home: Work: Personal Mobile: Fax:	4.00 day	as needed	
a	6	ABB, Inc.	(b) (7)(D) Work: Personal Mobile: Fax:	2.00 day	as needed	

20. Instance Description: A. Hazard B. Equipment C. Location D. Injury/Illness E. Measurements

a) **Hazards-Operation/Condition-Accident:** JBR 3/4 Building Bus B - The electrical cabinets manufactured and installed after in 2005-2006 had tagout locations used for equipment isolation whereas tags were placed on switches which could not accept a lockout devices and were used for of potentially hazardous energy control points.

There were control points on the equipment which had not been equipped with hardware that was capable of accepting a lockout device. Instead the DC control circuits had tags hung around the switches with a hanging tag. This point was a known hazardous energy control point and was documented in their own internal clearance/tagout procedure.

b) **Equipment:** Metal-Clad Switchgear: No. G-749961 (Listed by ABB, Inc. Lake Mary, Florida 32746)

UL Listed # E-143324.

Serial Number 1VALCS01558B01

Max Volts 4.76

Main Bus Capacity 3500A

Peak withstand Current 130KA

Short-Time, Sym RMS 50KAA

The Original design date drawing indicates this was approved as installed on September 1, 2005. The materials indicate that the customer (Georgia Power) had a Purchase Order XAK2774 and 5081777 and S81303

c) **Location:** Plant Bowen, JBR 3/4 Building Bus B Cabinets.

d) **Injury/Illness (and Justifications for Severity and Probability):** Death or serious Injury from shock or Arc Flash/Blast.

e) **Measurements:** Management and employee interviews, along with one line diagrams show 4160V AC, 480 V AC, 110V AC, 110 V DC.

23. **Employer Knowledge:** Ralph Granger - Maintenance Specialists, Sr. (Coordinated with the ABB Employees and Hung the Grounds) Performed the walk down and coordination with the outside contractors.

24. **Comments:** The employer specified and installed the equipment in the 2005 to 2006 timeframe.

25. **Other Employer Information:** The fault current values in the table below are the worst-case values that were used to create the arcflash labels that are on the bus. 3/4 JBR 4KV BUS B Frames Bolted Fault Current (kA)

Frames and available fault Current

1 40.443,

1A 25.578

1B 40.443

2 40.443

3 55.324 4

40.443

5 67.089

6 40.443 7 40.443

8 (Front-Top) 40.442

8 (Front-Bottom) 40.442

9 (Front-Top) 40.442

9 (Front-Bottom) 40.442

8 (Rear-Top) 40.442

8 (Rear-Bottom) 40.442

9 (Rear-Top) 40.442

9 (Rear-Bottom) 40.442

U.S. Department of Labor
Occupational Safety and Health Administration

Violation Worksheet

Print Date : 04/28/2016

		Inspection Number		1102415	
		Opt. Insp. Number			
Establishment Name	Georgia Power Company				
DBA Name					
Type Of Violation	Other-than-Serious	Citation Number	3	Item/Group	2 /
Number Exposed	3	No. Instances	1	REC	
Special Enforcement?			Employer's Relationship to Hazard		
Standard	1910.269(d)(8)(iii)				
Substance Codes			Photo/Video Number		
Alleged Violation Description	<p>29 CFR 1910.269(d)(8)(iii): Procedures shall be used during shift or personnel changes to ensure the continuity of lockout or tagout protection, including provision for the orderly transfer of lockout or tagout device protection between off-going and on-coming employees, to minimize their exposure to hazards from the unexpected energizing or start-up of the machine or equipment or from the release of stored energy.</p> <p>a. Plant Bowen, JBR 3/4 Building - The company did not utilize a personnel change procedure to remove (b) (7)(D) from controlling the department tagout/clearance for the procedure numbered and titled 4-09-10-20-02, 4160V Limestone Bus D Alternate Feeder 648444 after he left the company in May 2014.</p>				
Recommended Abatement Action					

Penalty

Severity	Minimal		
Severity Justification			
Probability	Greater		
Probability Justification	This equipment was part of the on going job to modify the Bus.		
Gravity		Size	0%
Gravity based Penalty	1000.00	Good Faith	0%
Num Times Repeated		History	10% increase
Multiplier	1	Quick Fix	0%
Calculated Penalty	1100.00	Proposed Penalty	0.00
Proposed Penalty Justification:	No penalty attached to other-than-serious		

Abatement Details

Days to Abate	30 Wkg Days	Abatement Status	
User-entered Abatement Due Date	06/13/2016	Date Abated	
Abatement Documentation Required?	Yes	Date Verified	
Abatement Completed Description:			

MultiStep Abatement

Type/Other Type	Days to abate	User entered Abatement Due Date	Completed(status)	Verify Date
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Employee Exposure

Exposure Instance	No. Exposed	Employer	Name and Address Telephone Numbers	Duration	Frequency	Proximity
a	3	Georgia Power Company	Ralph Grandner (b) (7)(D) Home: Work: Personal Mobile: (b) (7)(D) (b) (7)(D) Fax:	2.00 year		
a	3	Georgia Power Company	(b) (7)(D) Home: Work: Personal Mobile: Fax:	2.00 year		
a	3	Georgia Power Company	(b) (7)(D) Home: Work: Personal Mobile: Fax:	2.00 year		

20. Instance Description: A. Hazard B. Equipment C. Location D. Injury/Illness E. Measurements

a) **Hazards-Operation/Condition-Accident:** JBR 3/4 Building II The company did not utilize their personnel change procedure required by 1910.269(d)(8)(iii) to remove (b) (7)(D) from controlling the department tagout/clearance for the procedure numbered and titled 4-09-10-20-02, 4160V Limestone Bus D Alternate Feeder 648444 after he left the company in May 2014.

The system had been in place whereas the company would use a "department lock" to control equipment and tag it

out of service with a regular tagout/clearance red tag.

b) **Equipment:** JBR 3/4 Building, Switchgear labeled Buss B.

c) **Location:** Plant Bowen, JBR 3/4 Building.

d) **Injury/Illness (and Justifications for Severity and Probability):**

e) **Measurements:** Management and employee interviews, along with one line diagrams show 4160V AC, 480 V AC, 110V AC, 110 V DC.

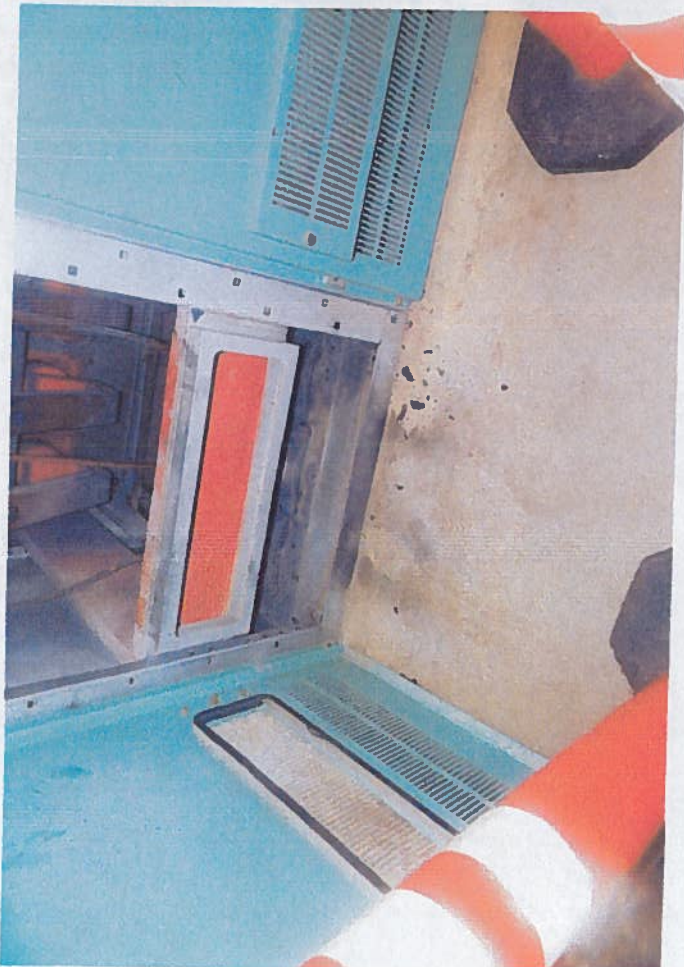
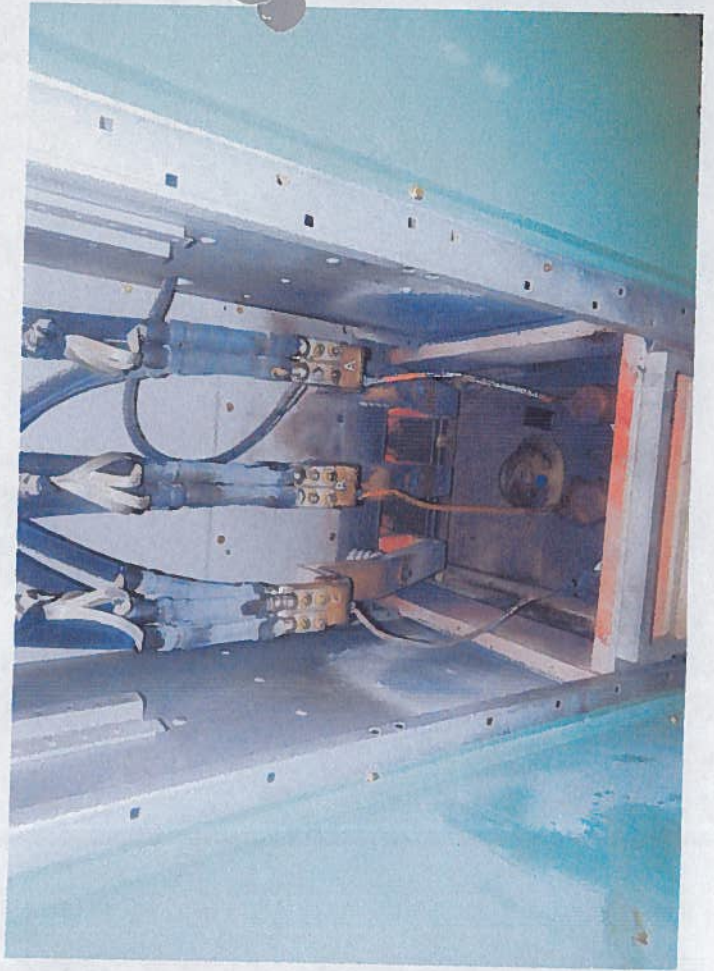
23. **Employer Knowledge:** The annual review of the procedures alerted them to the fact that this one was still used and active.

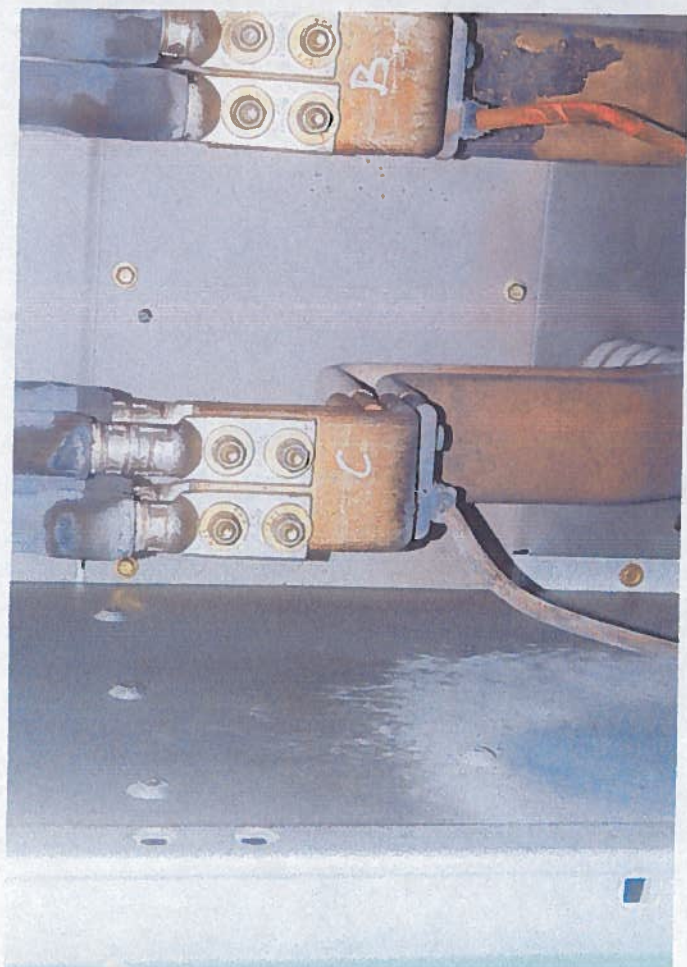
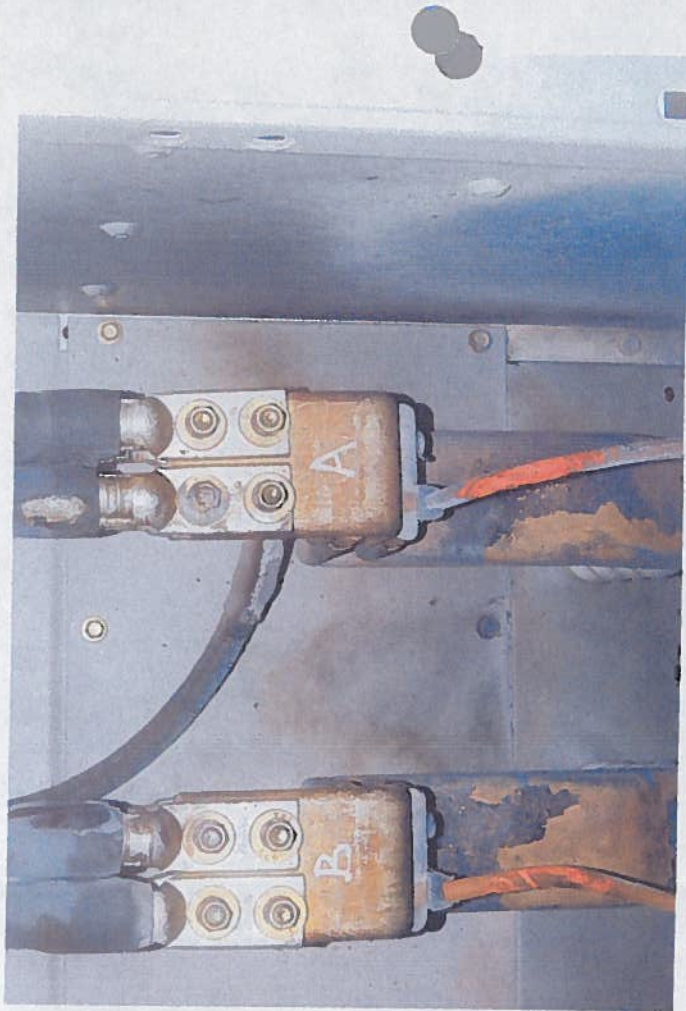
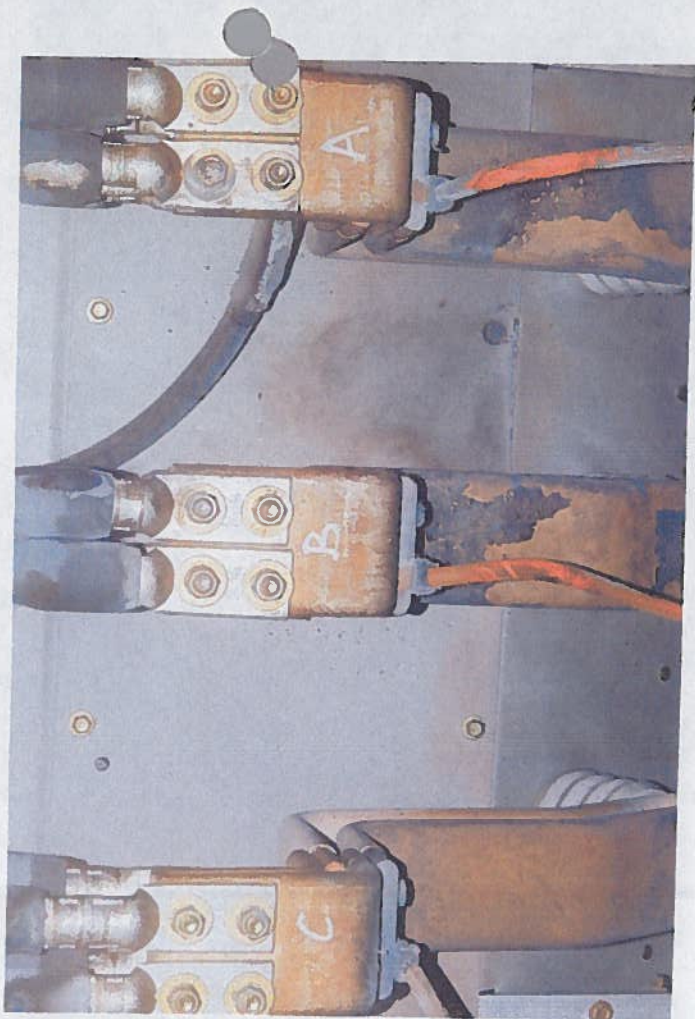
24. **Comments:**

25. **Other Employer Information:** The fault current values in the table below are the worst-case values that were used to create the arcflash labels that are on the bus. 3/4 JBR 4KV BUS B Frames Bolted Fault Current (kA)

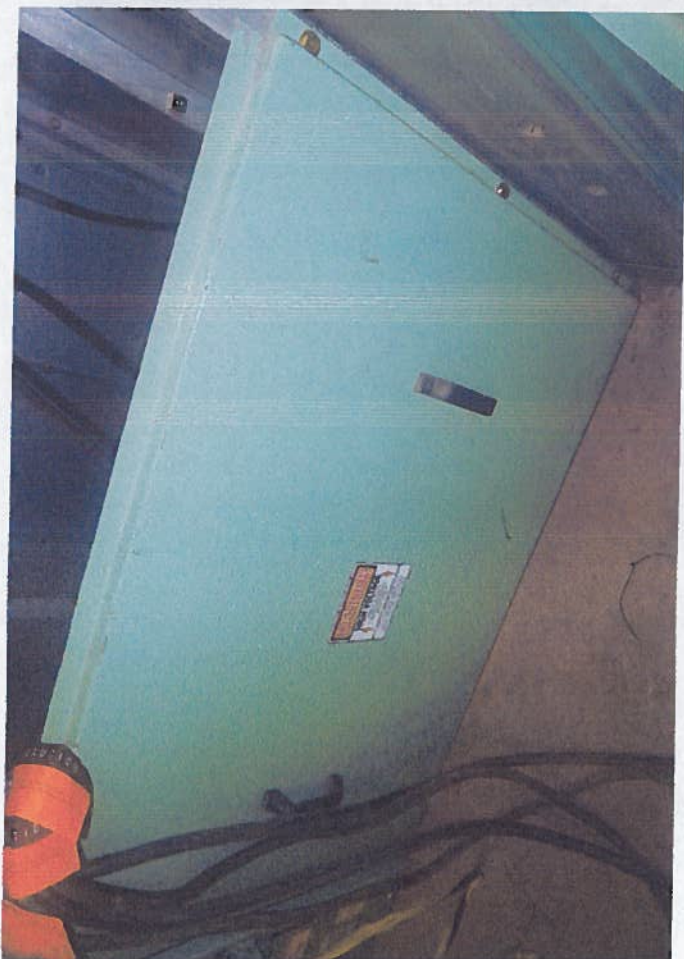
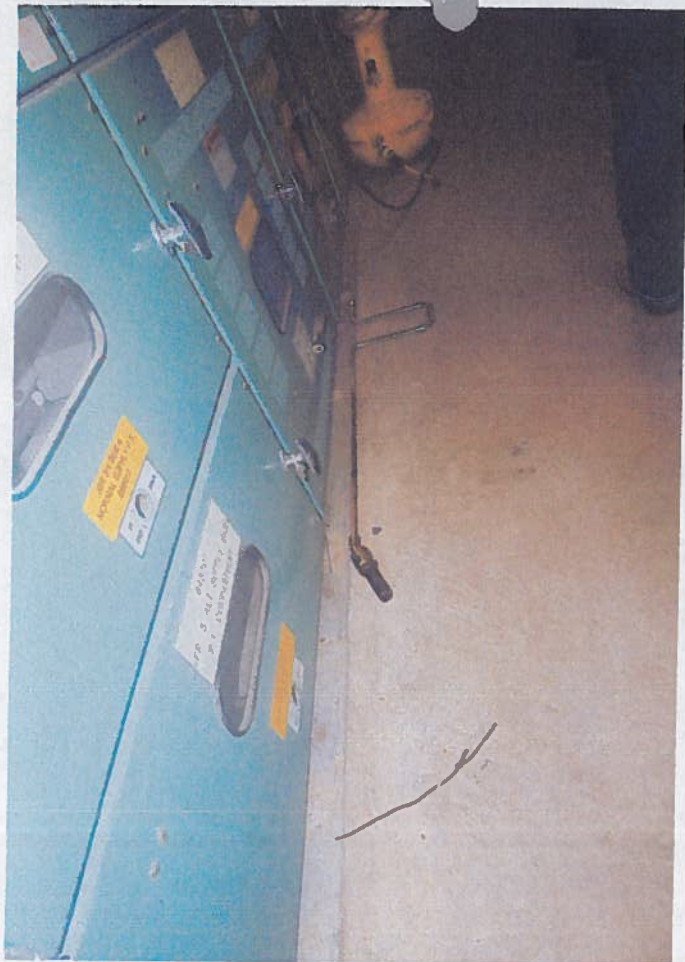
Frames and available fault Current

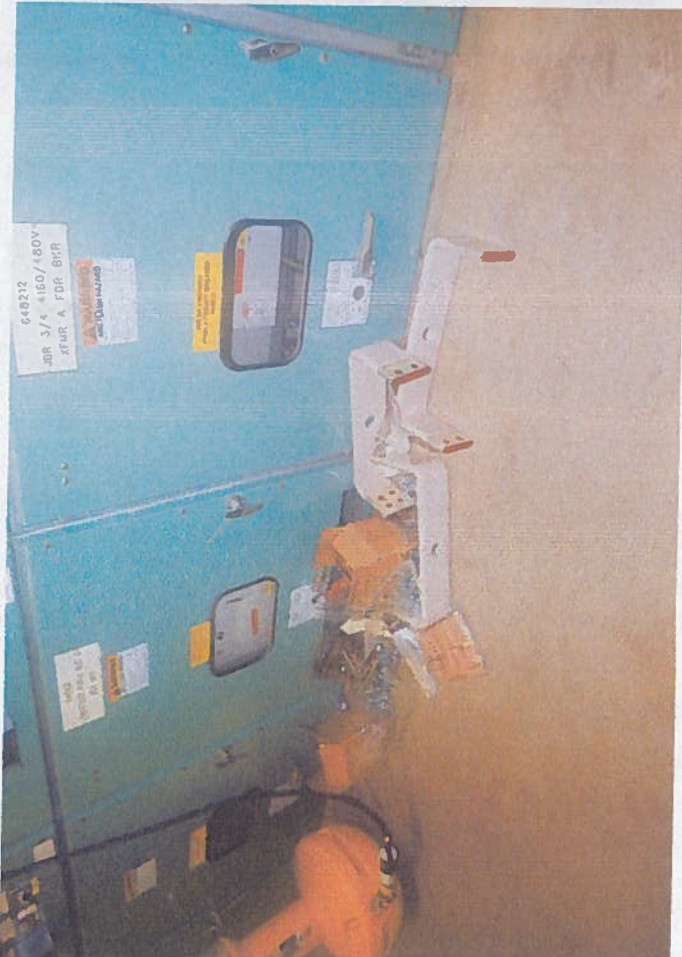
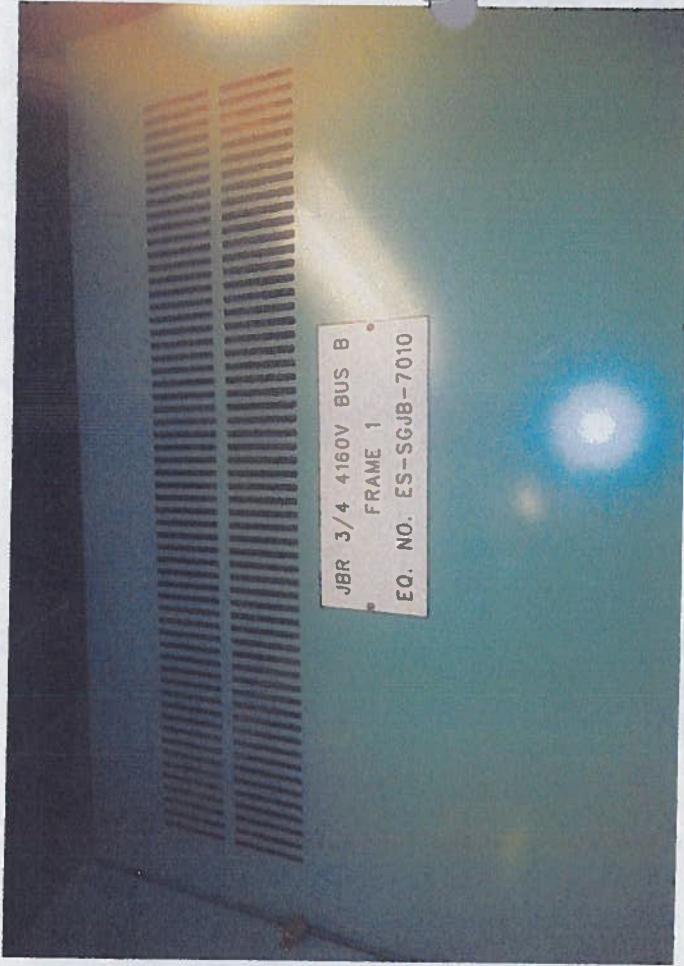
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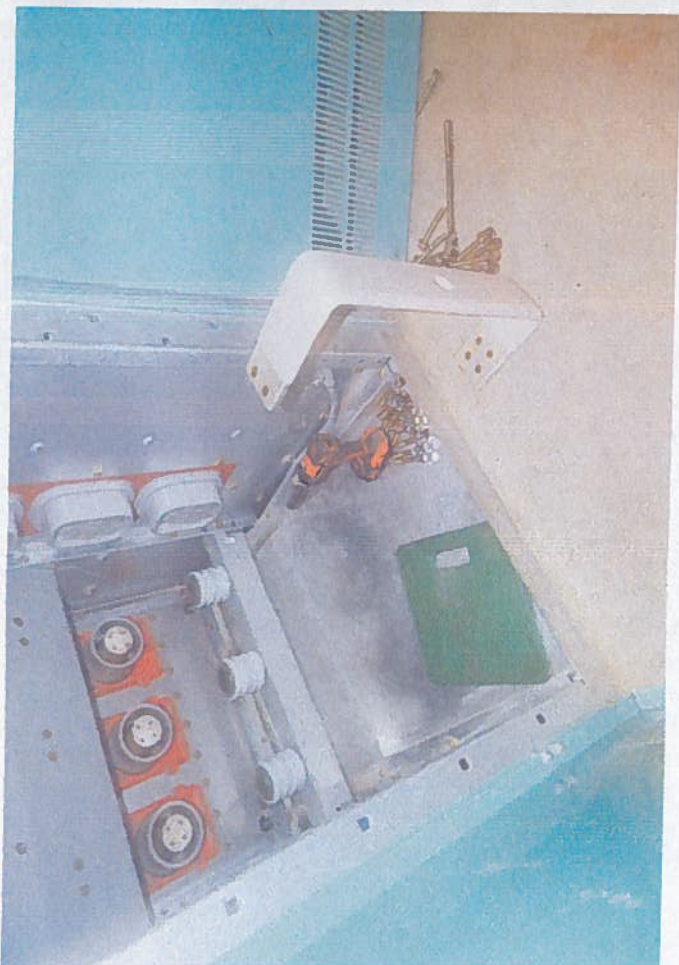
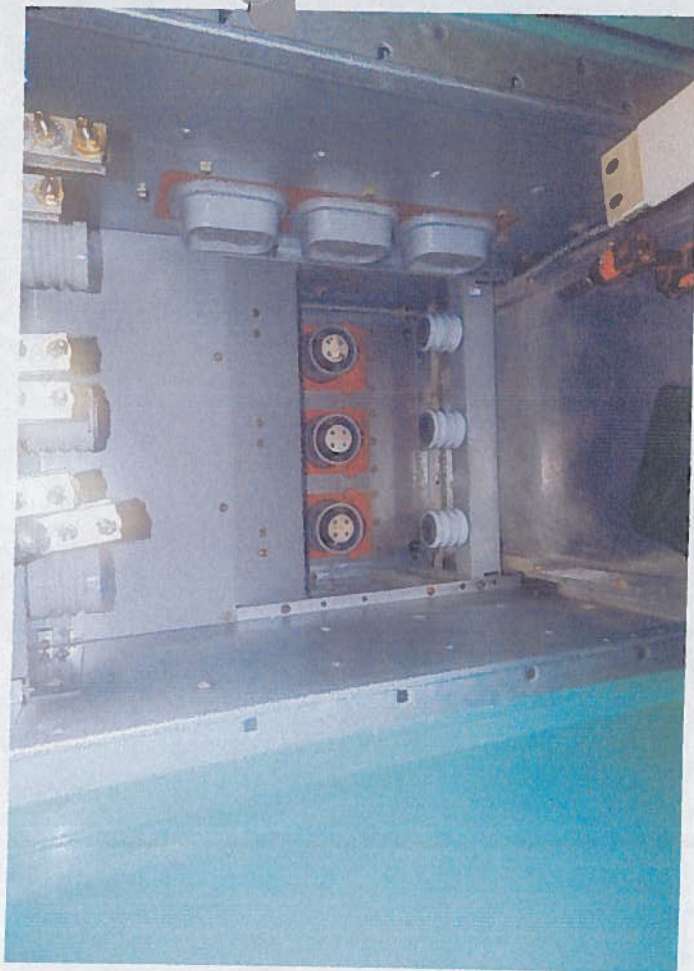
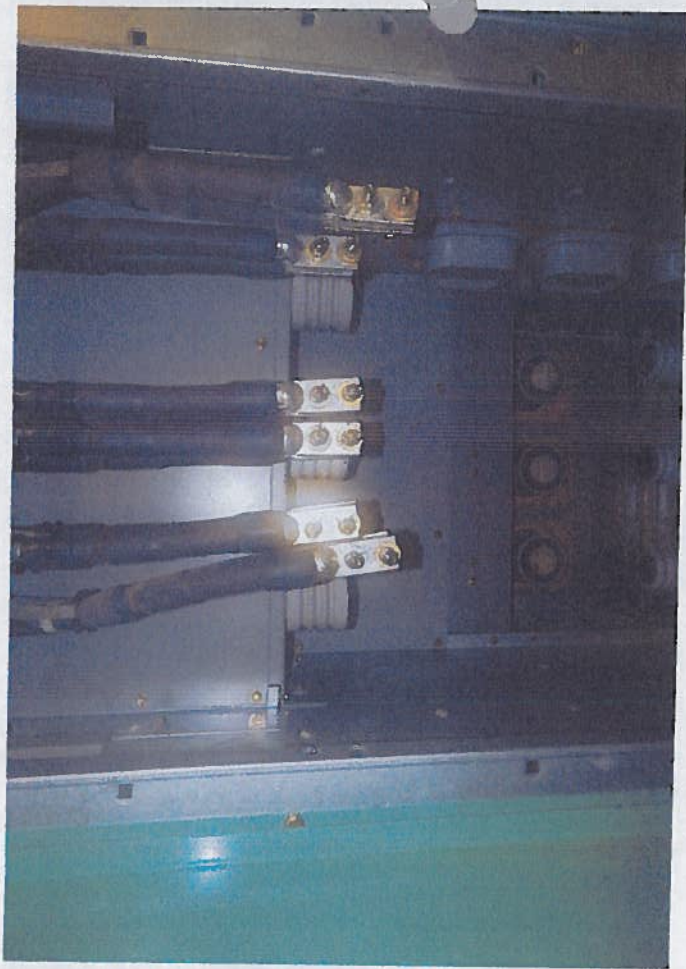


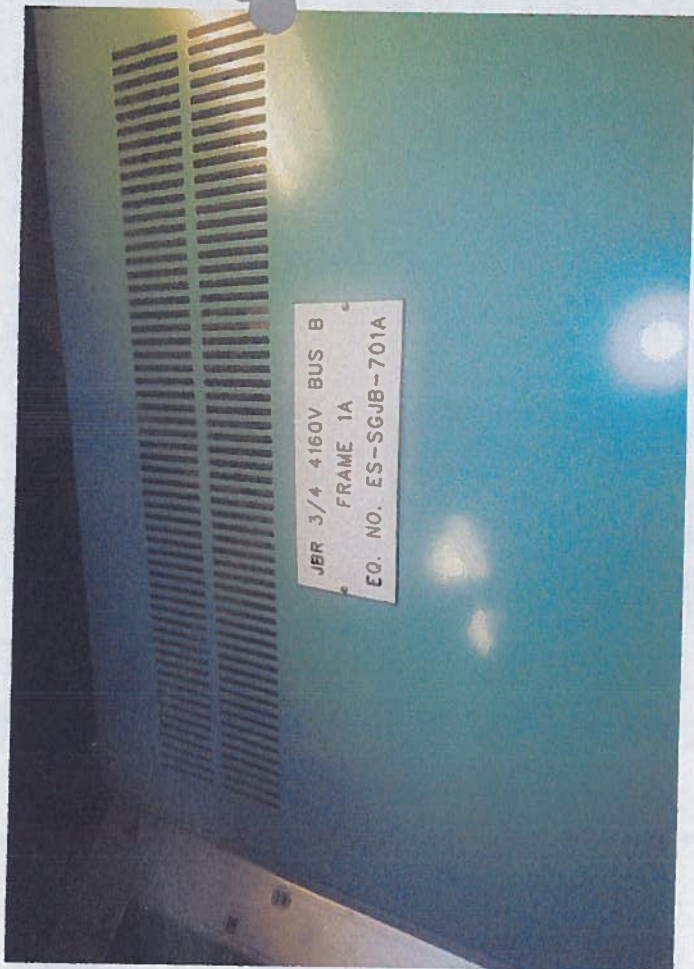


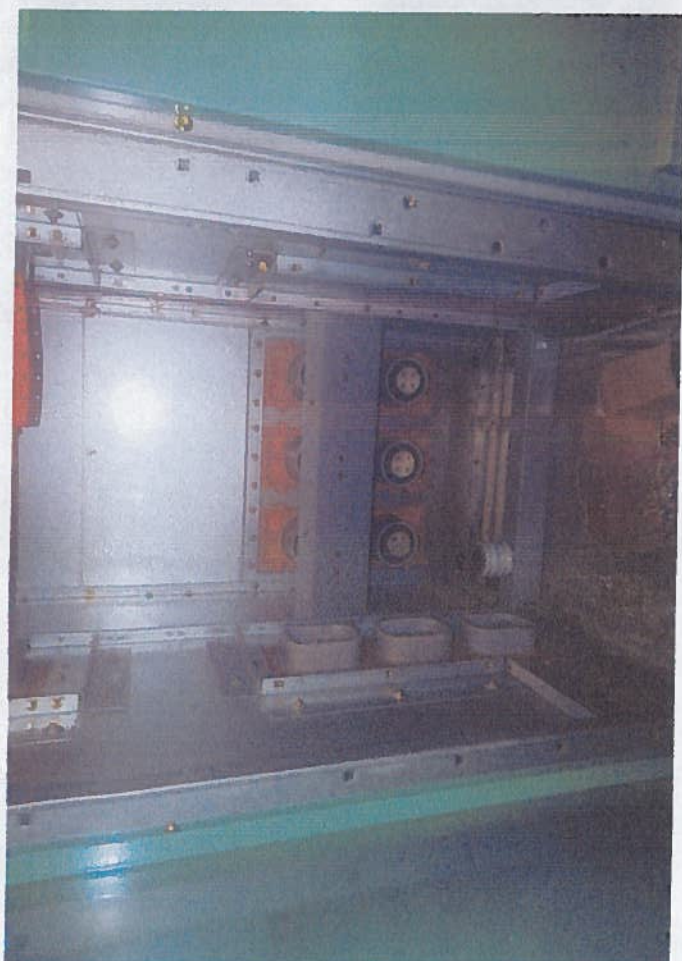
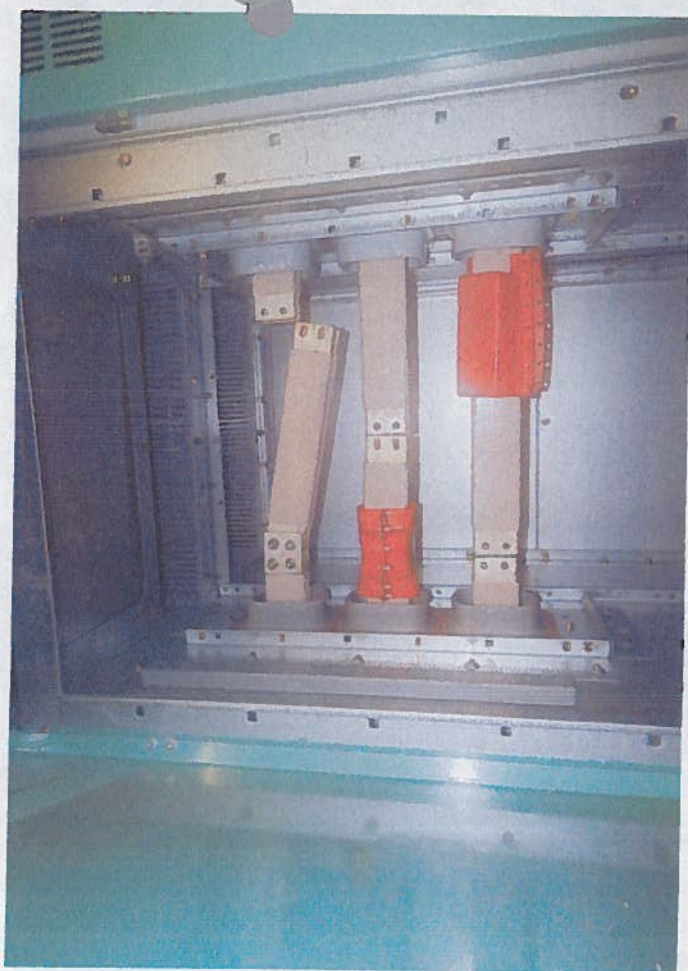
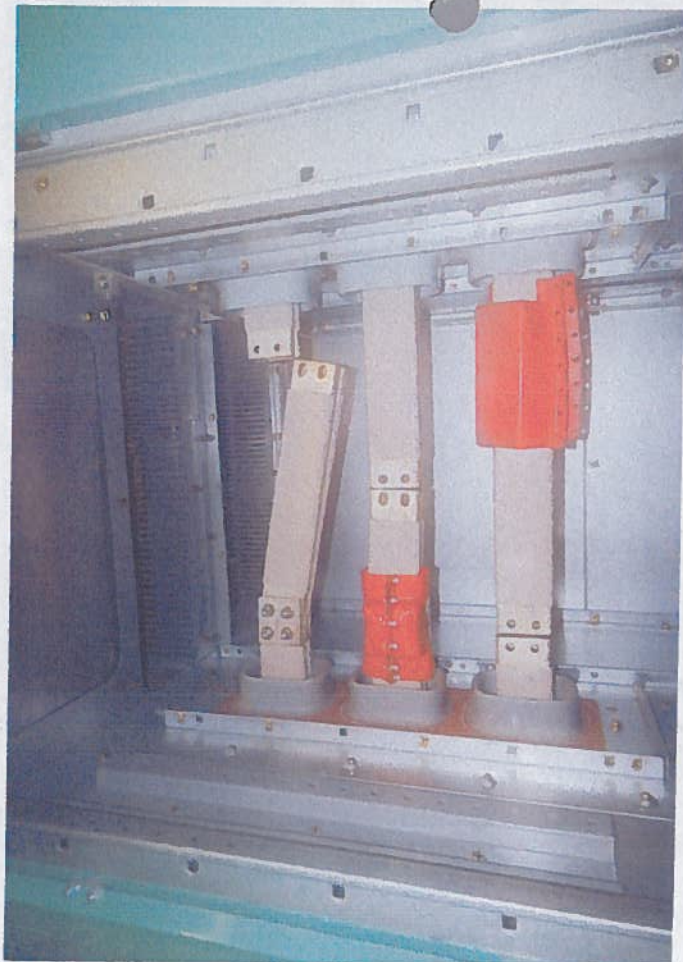


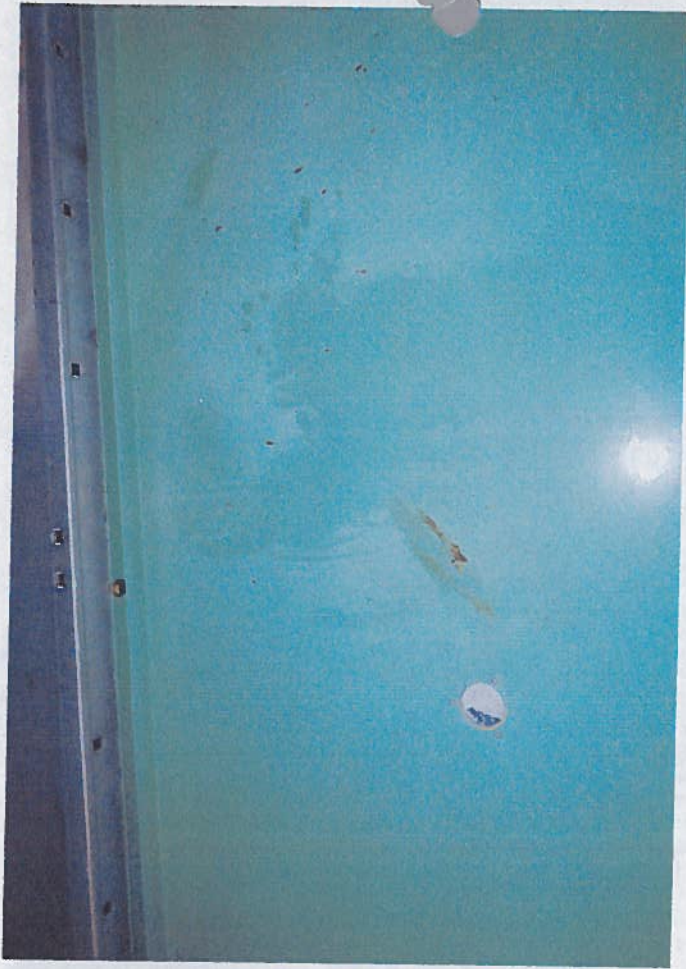


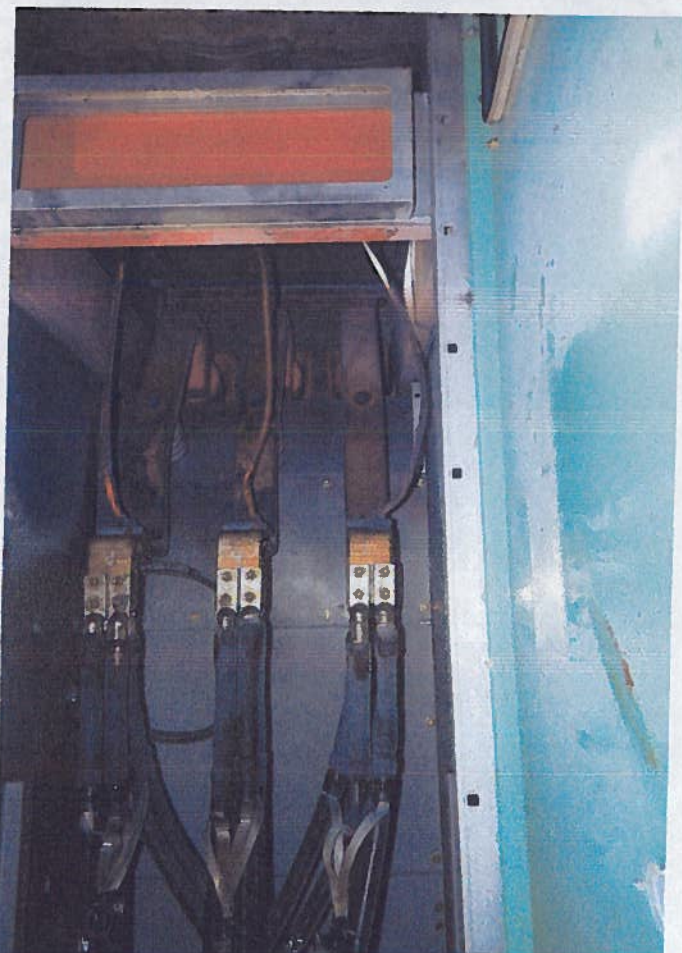
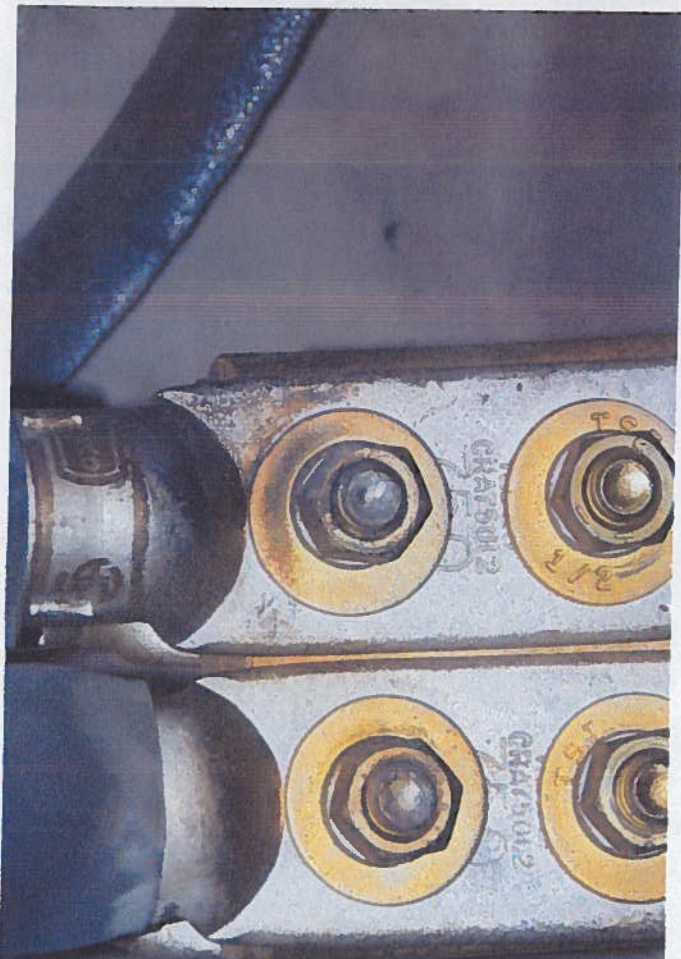
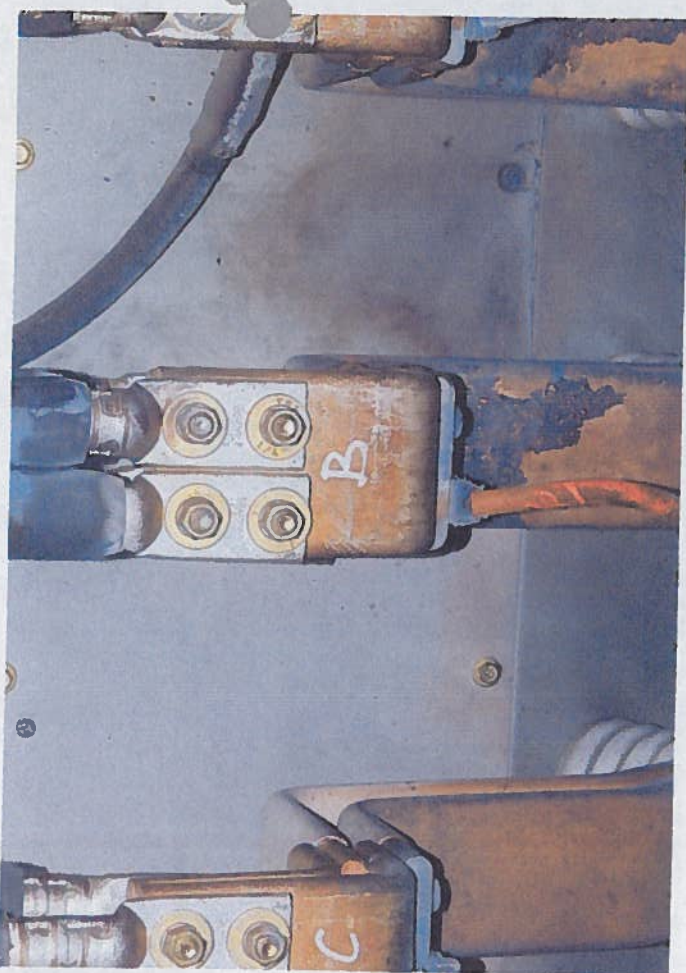


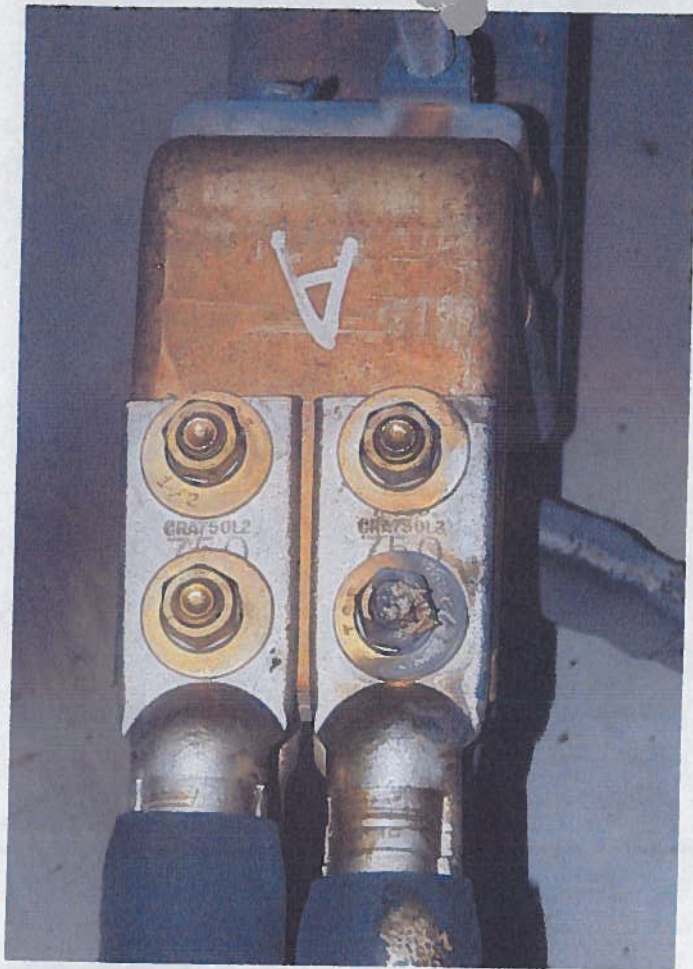


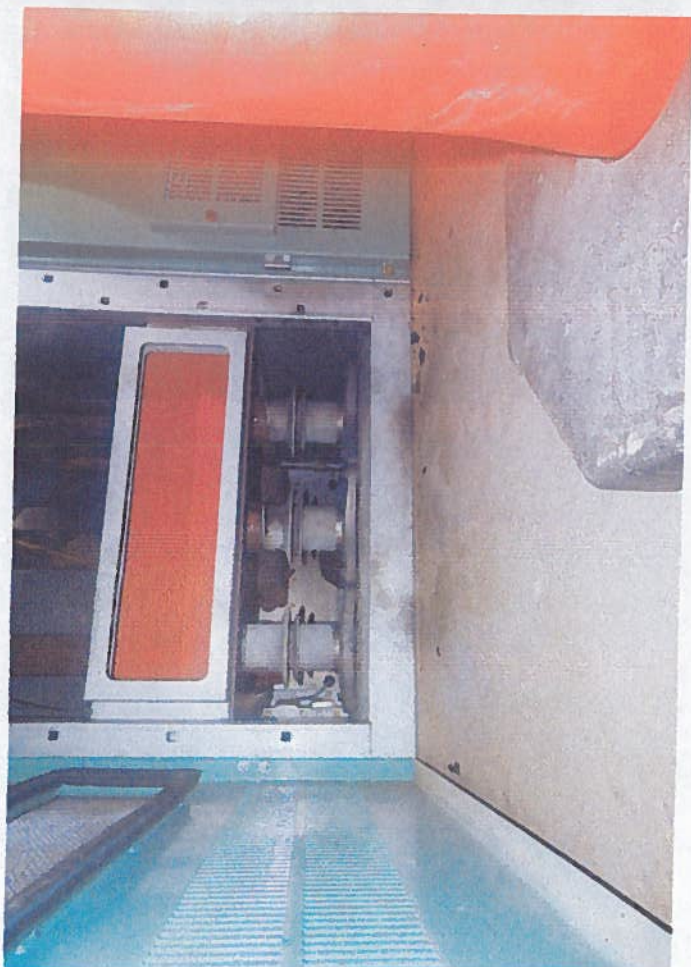
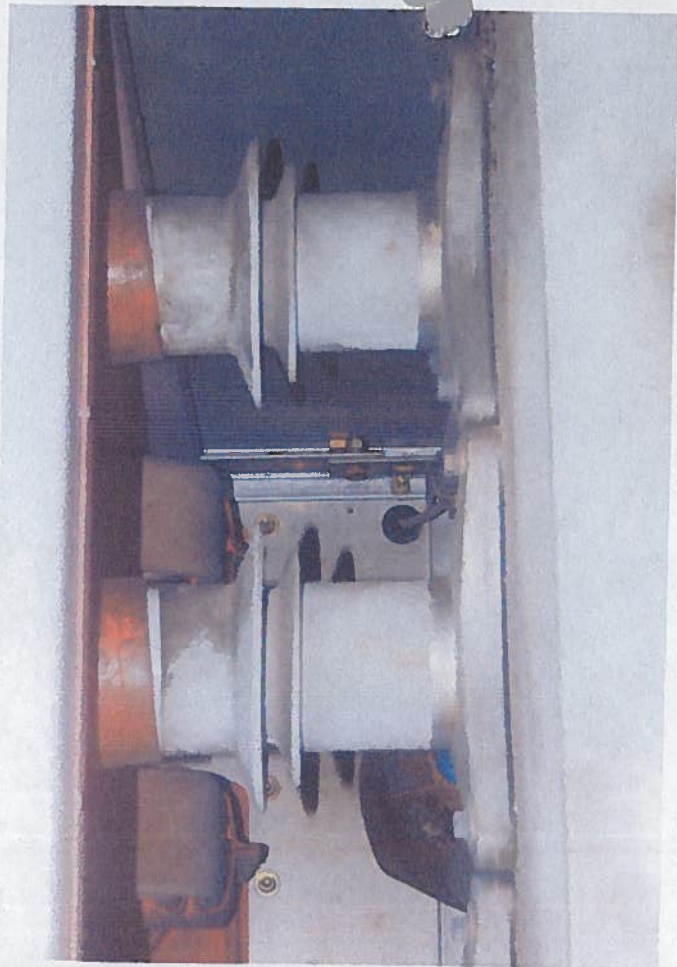
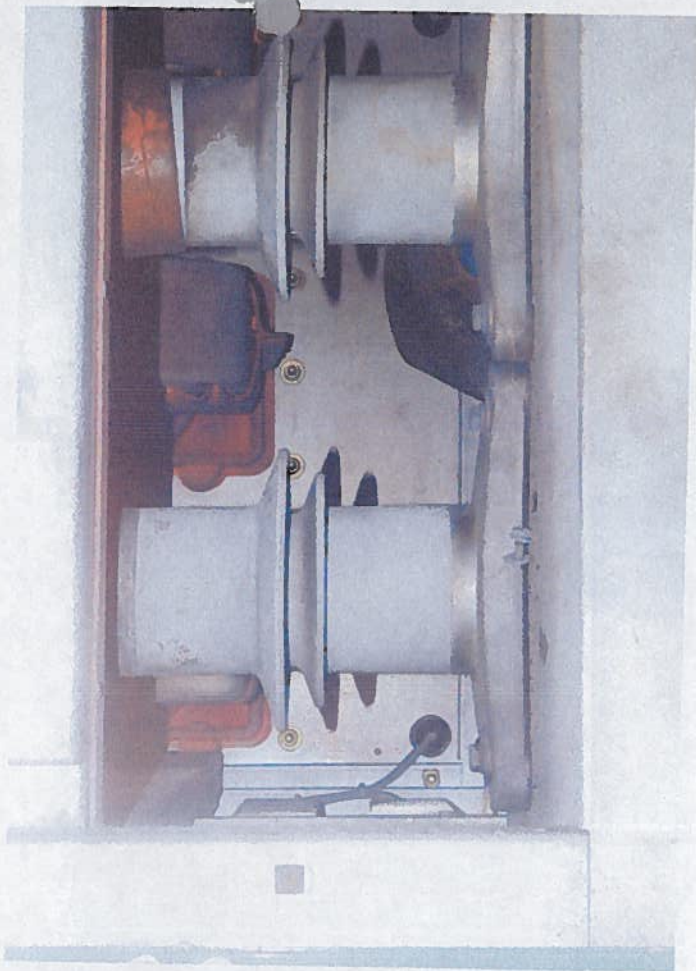


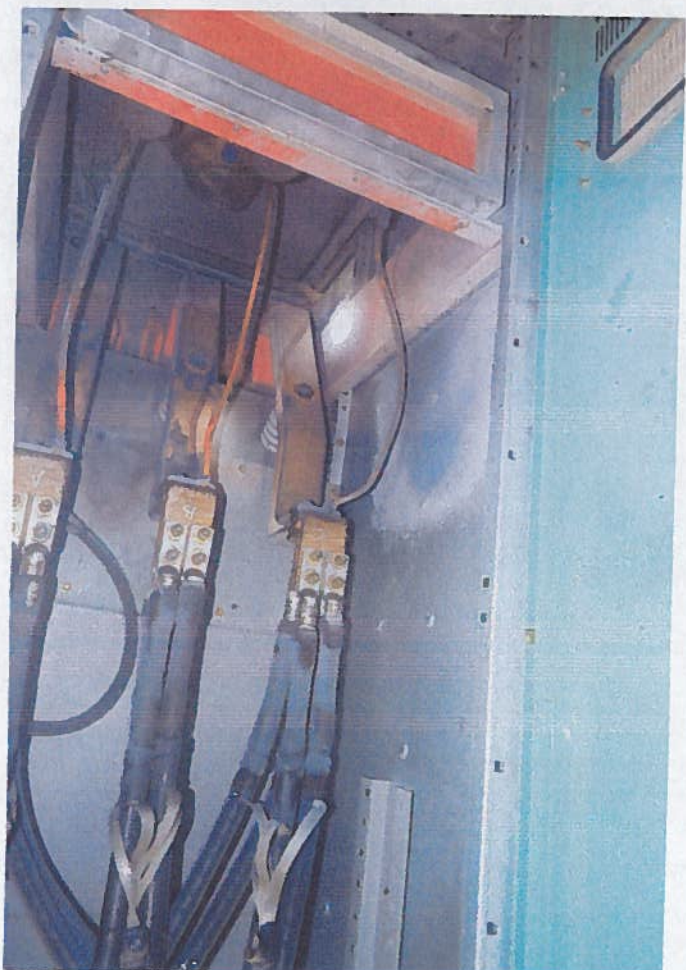
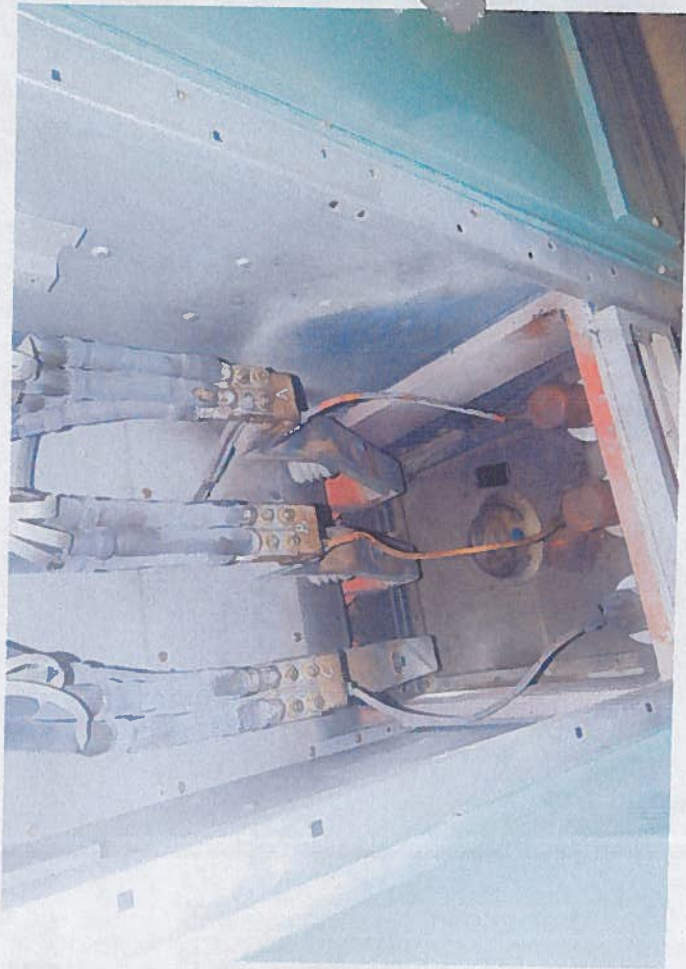


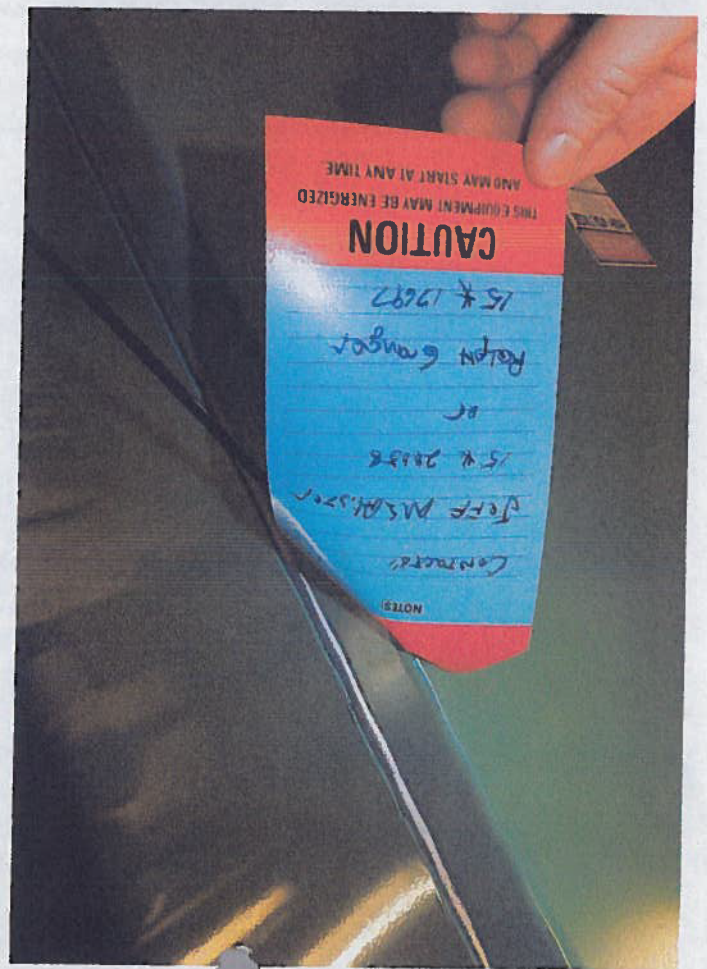
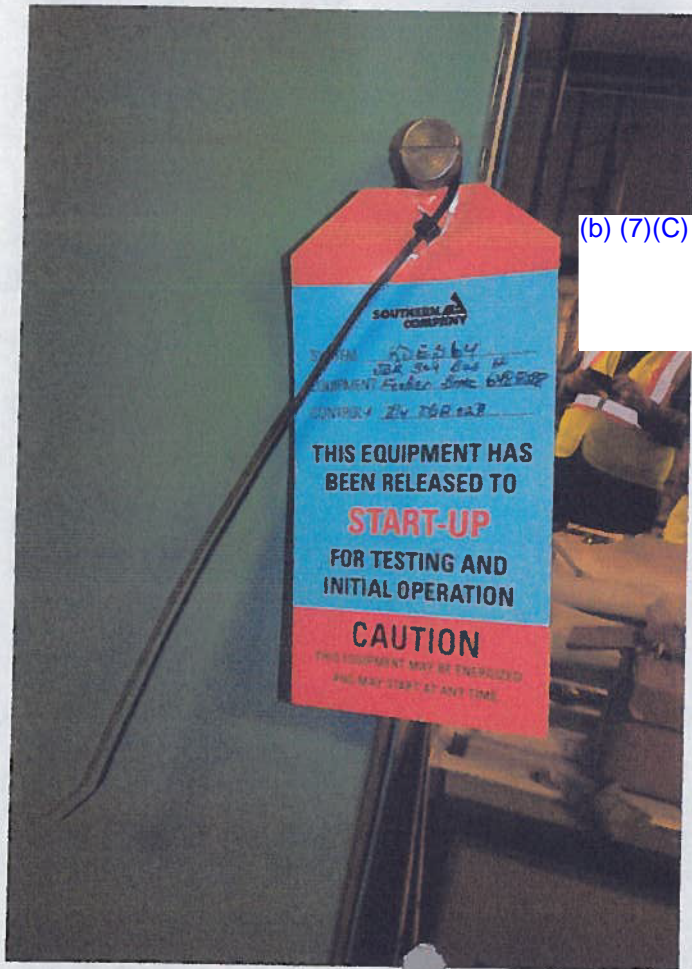


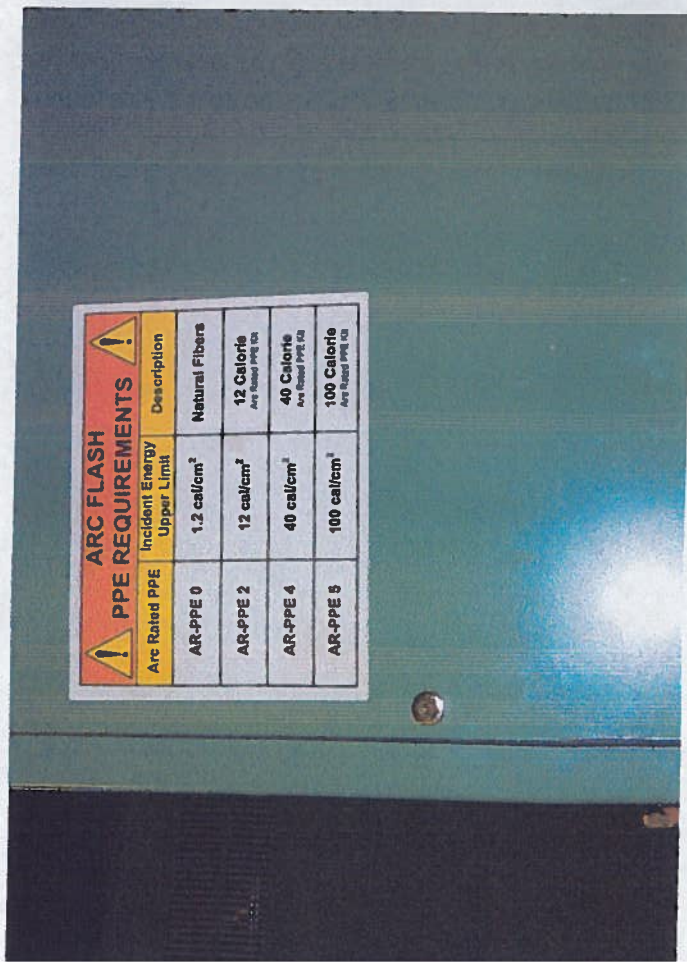
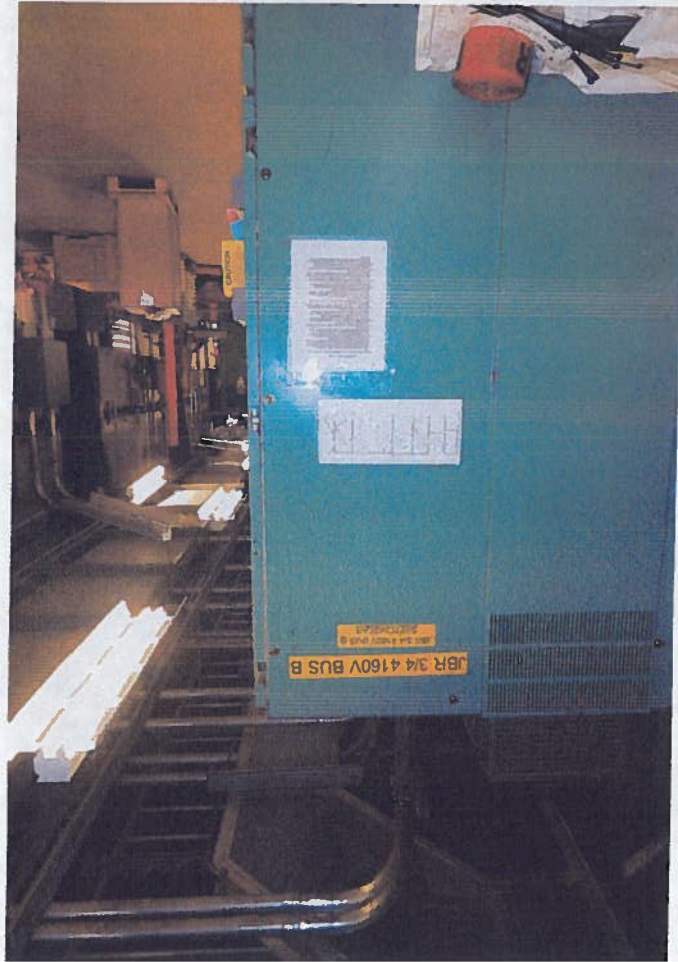
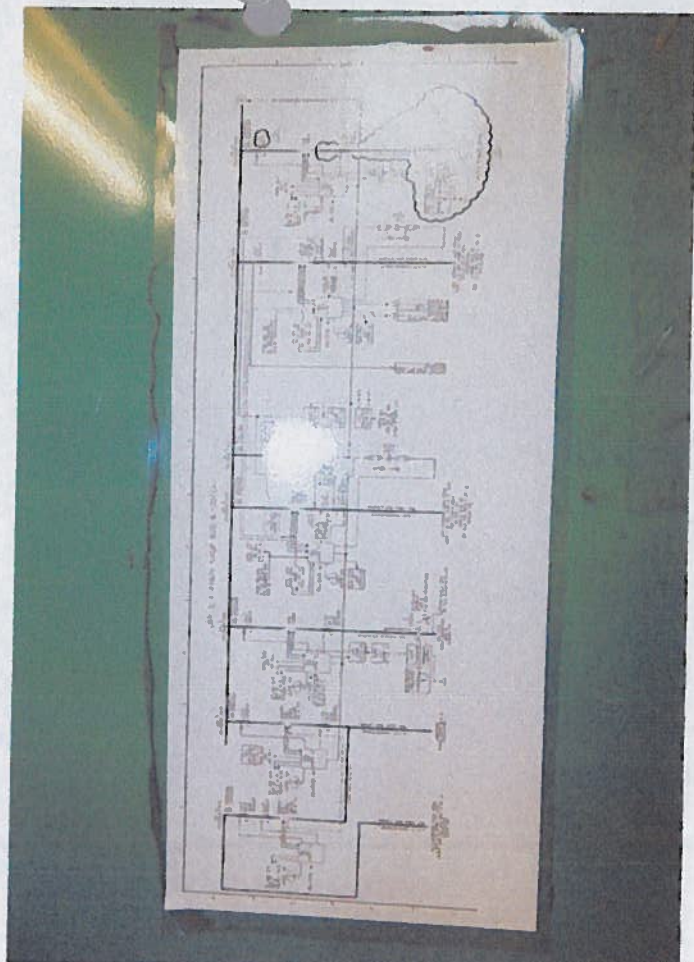
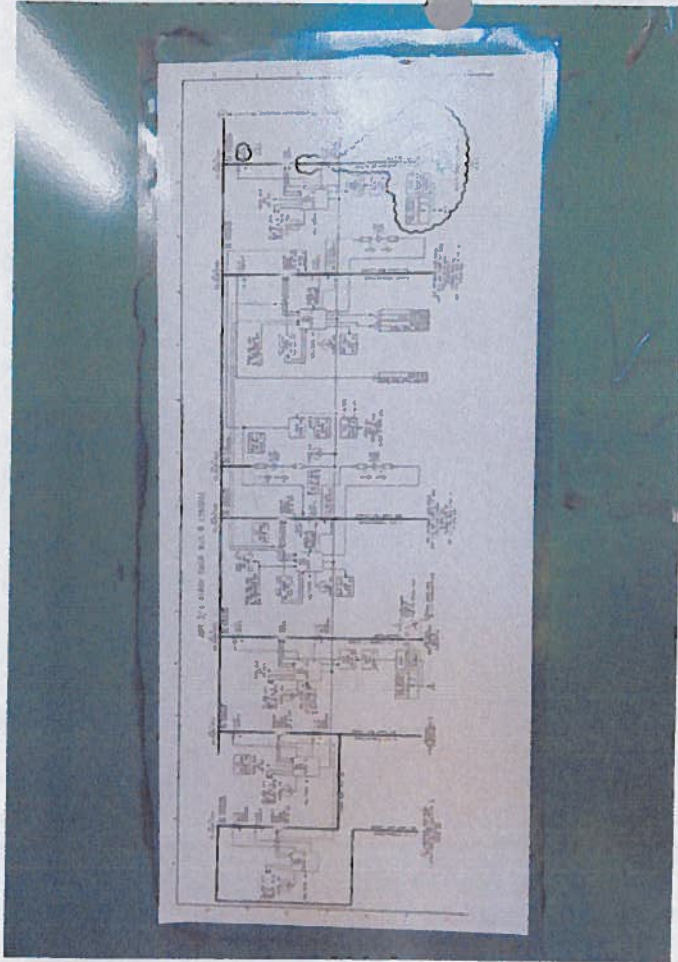


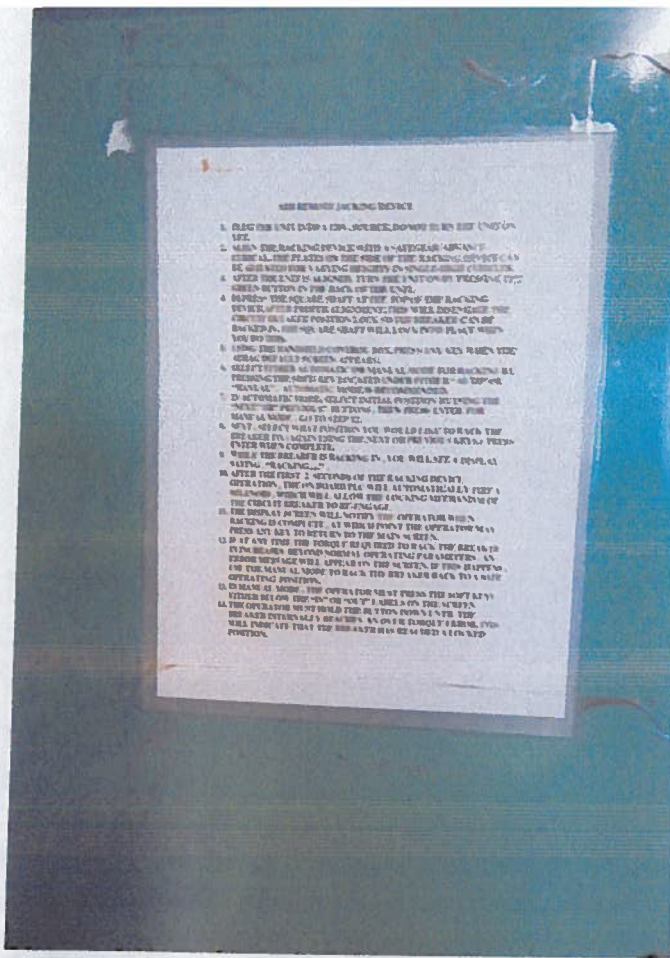


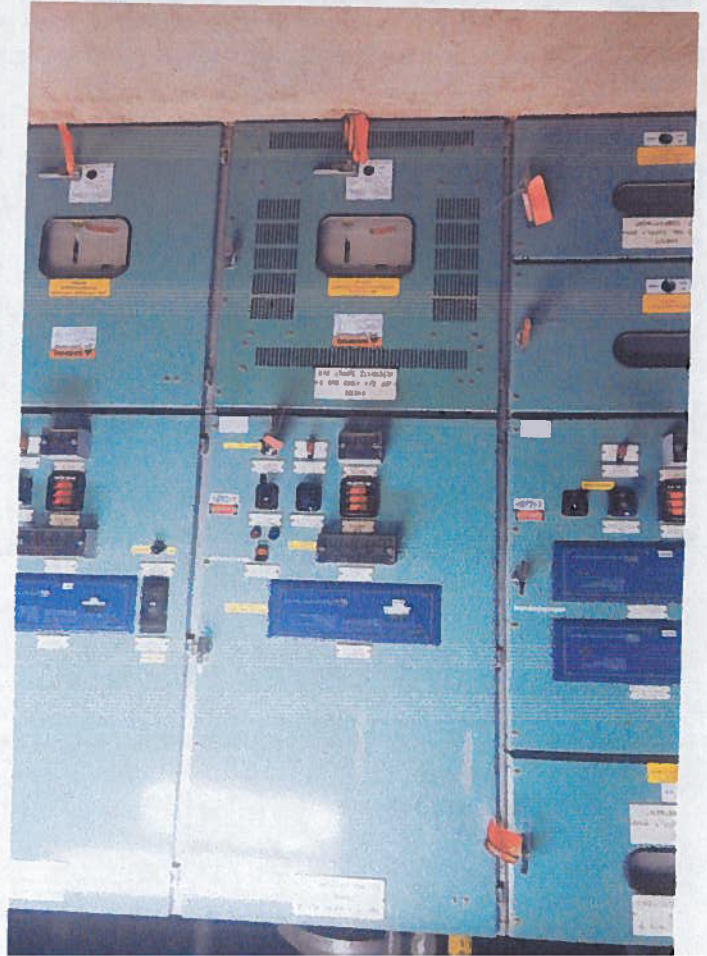
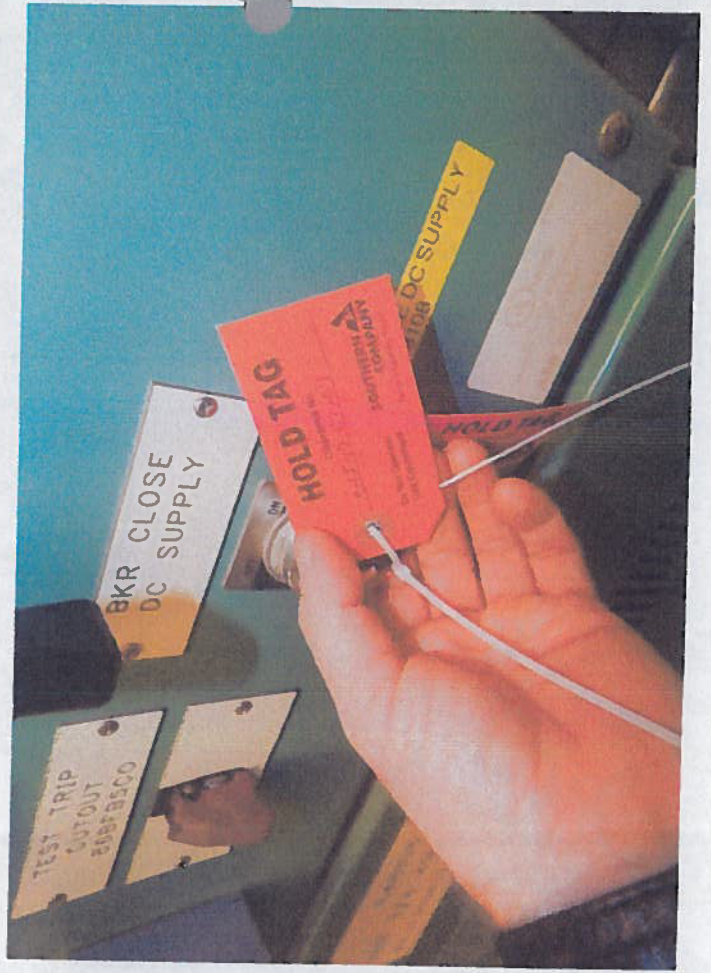




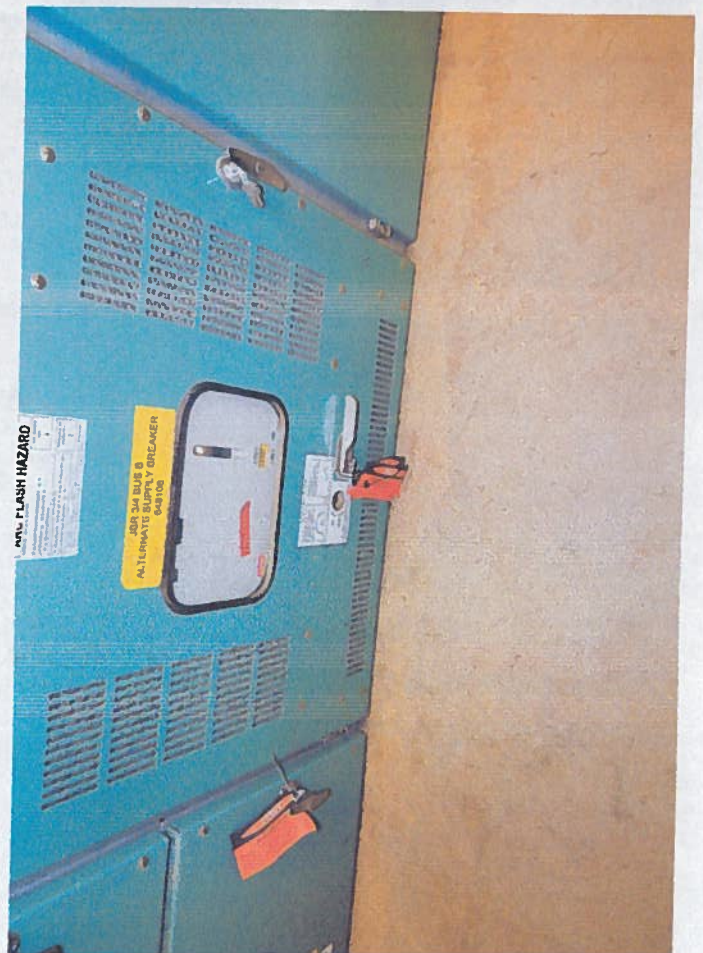
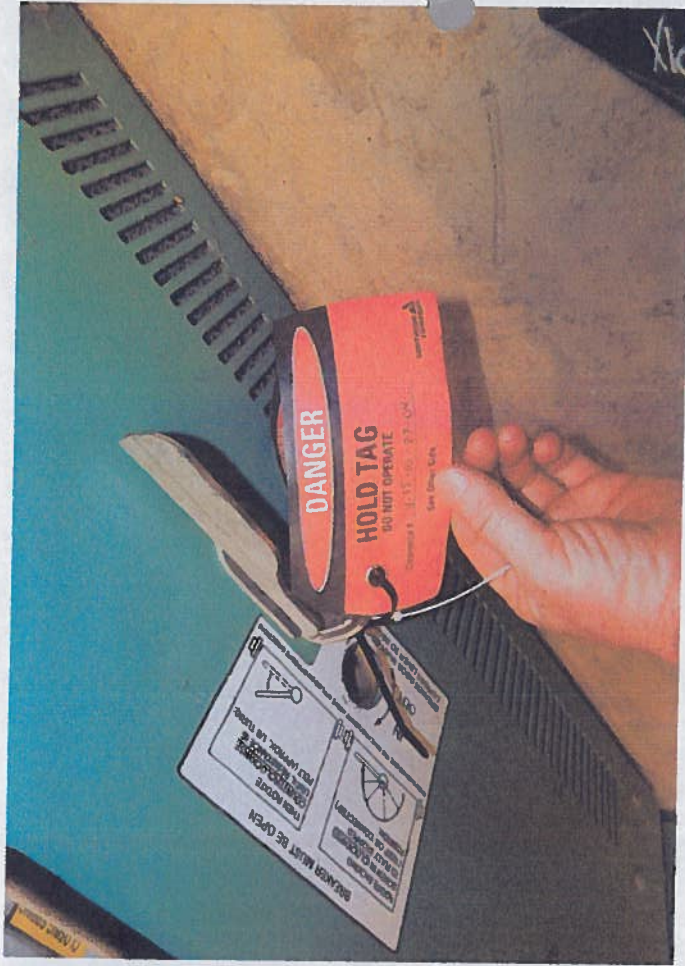


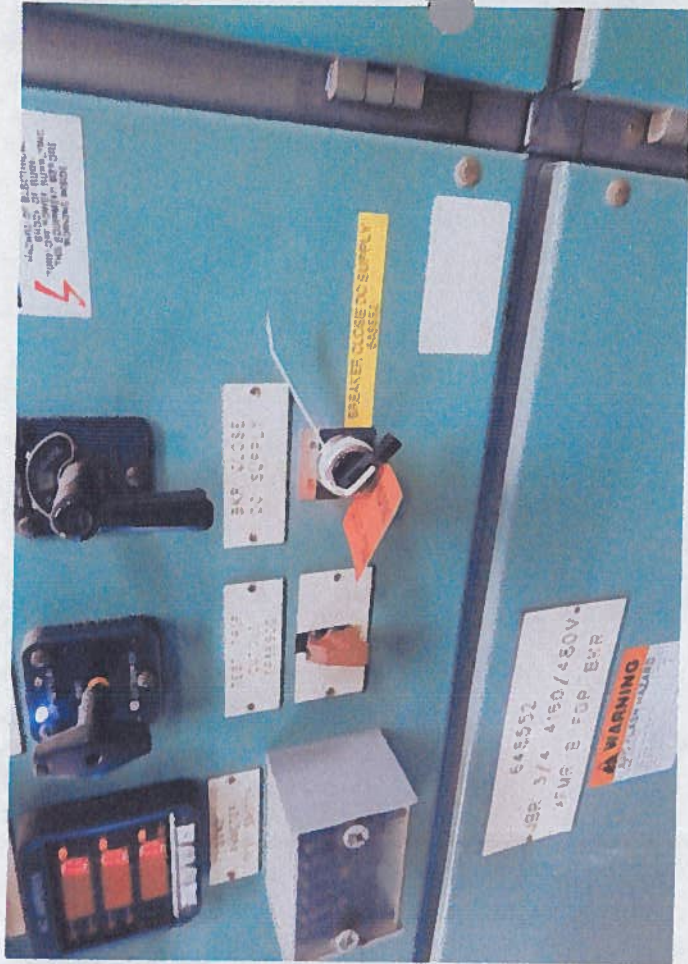


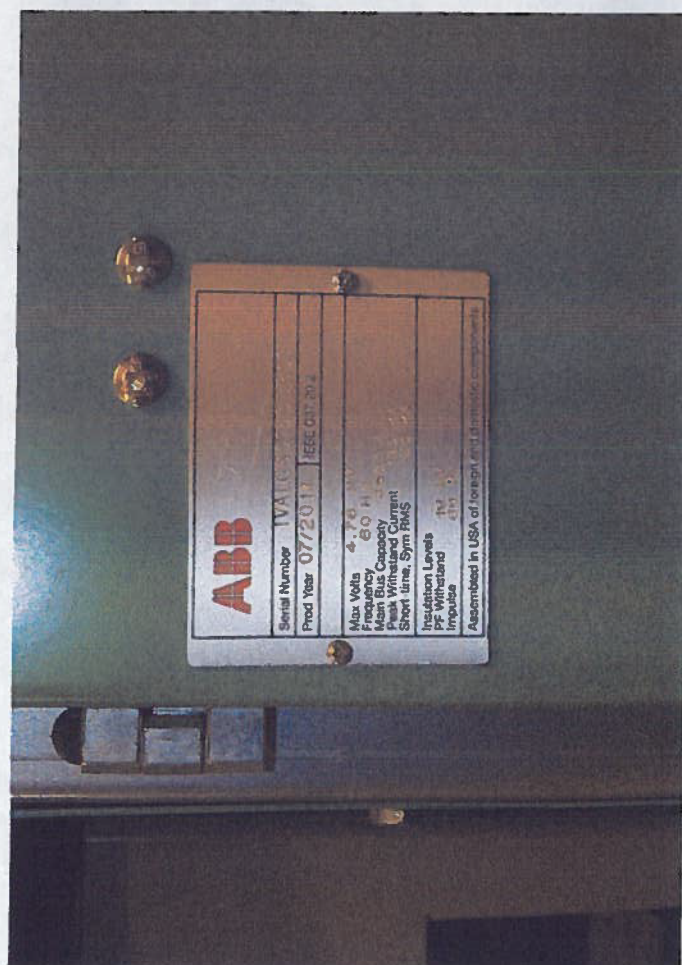
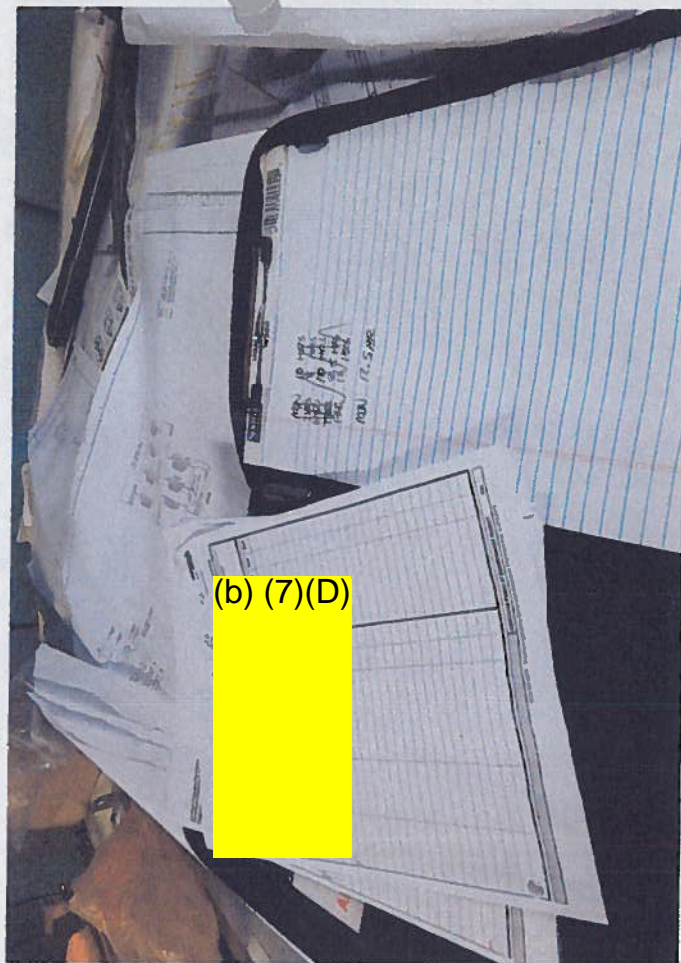
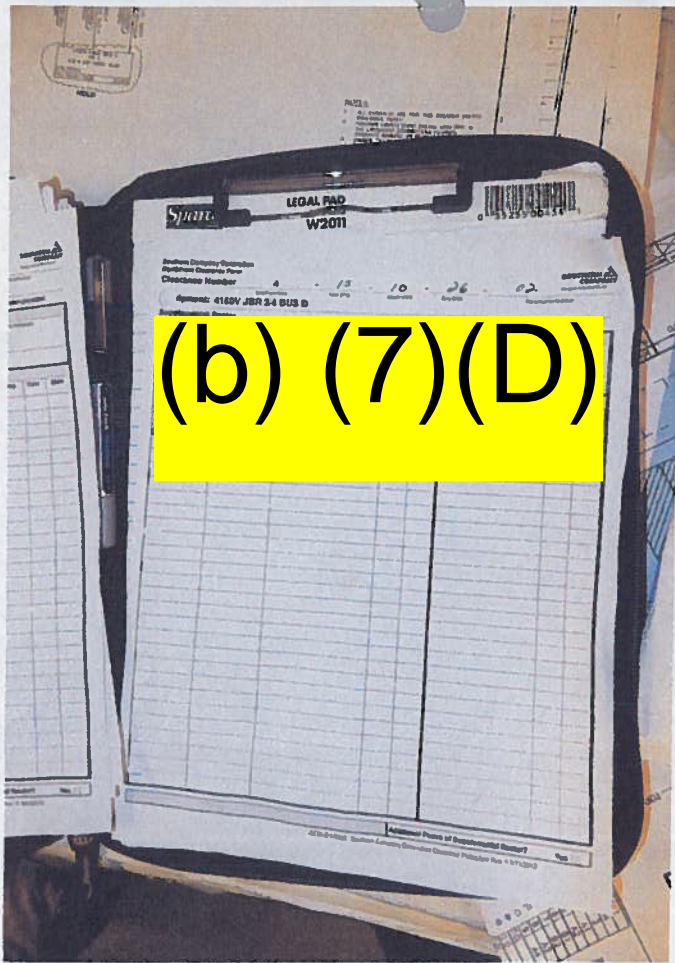












(b) (7)(D)

(b) (7)(D)

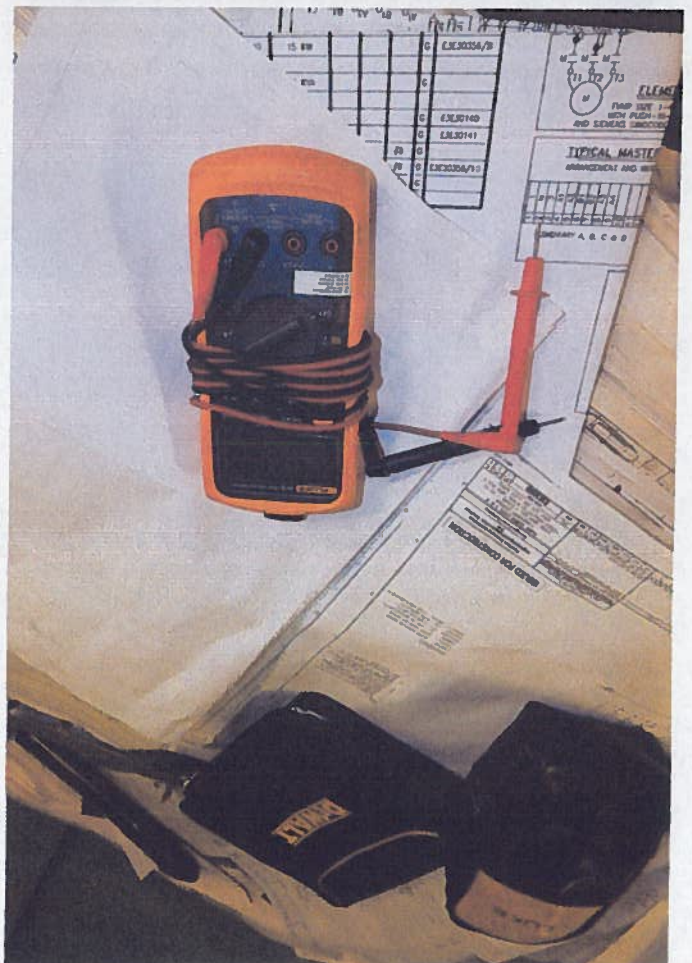
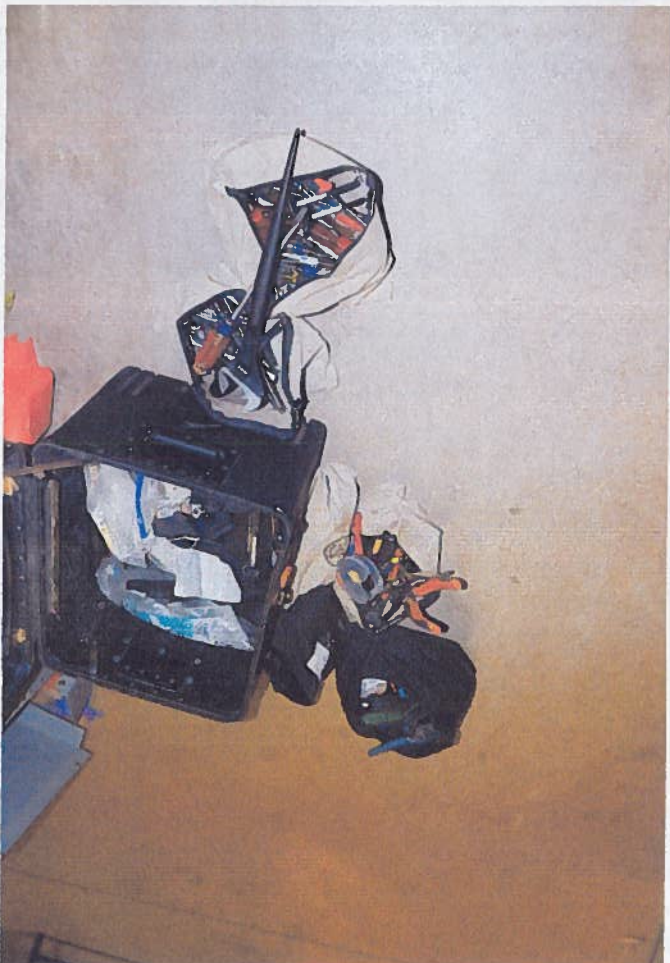
ABB
Safety & Health Plan
Emergency Contact Information

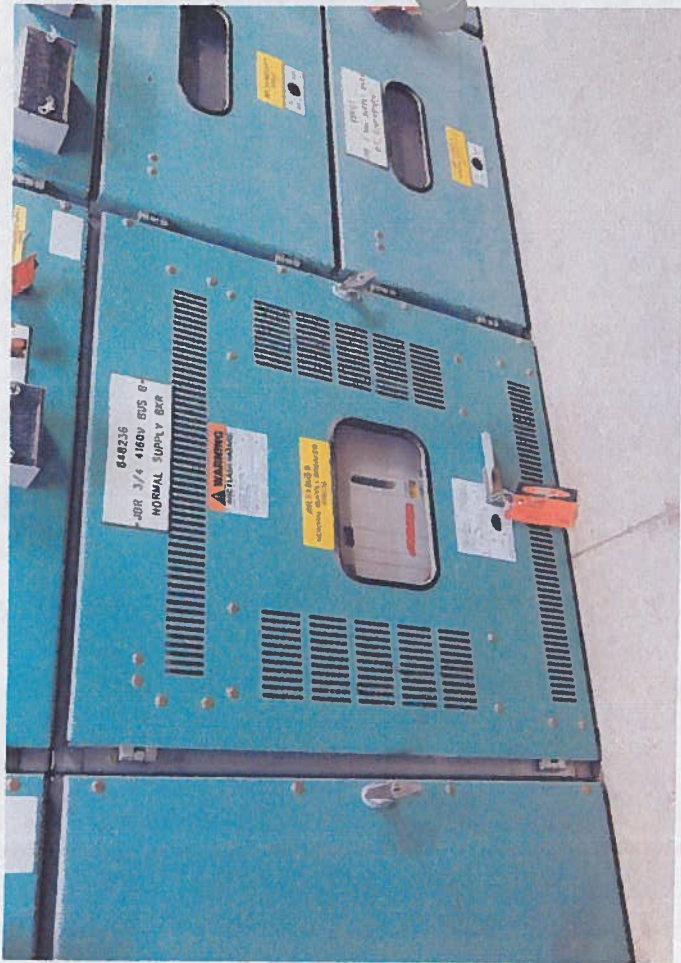
Job Number: 4255551	Location Address: 327 CONRAD BRIDGE RD. ATLANTA, GA 30320
Customer: PLANT BOWEN	Office: 770-606-6129
Project Manager: RALPH GRABNER	Cell: 770-580-2837
Description of Work: MODIFY 3000 Amp BUS FOR SPAN RACK JEREMY HUNG	
Emergency Contact Information	
CONTACT NAME	TELEPHONE NUMBER
Local Emergency Medical Services	6331
Police Emergency	
Fire or Confined Space Emergency	
Local Fire Department Number - Non-Emergency	
Nearest Hospital Name: CAETUSVILLE MEDICAL	
Location: 958 JONES ROAD SEVEN	
Construction Site Safety Representative Name: RALPH GRABNER	
Sub-Contractor Representative Name: J/A	
Customer Contact Person Name: RALPH GRABNER	
PPMVS Safety Advisor: Debbie Rombert	Office: 843-413-4721 Cell: 843-229-4159
PP NAM FS HSE Mgr: Mike Wilson	314-451-5722
Field Service Manager: Steven Creekmur	710-910-2078

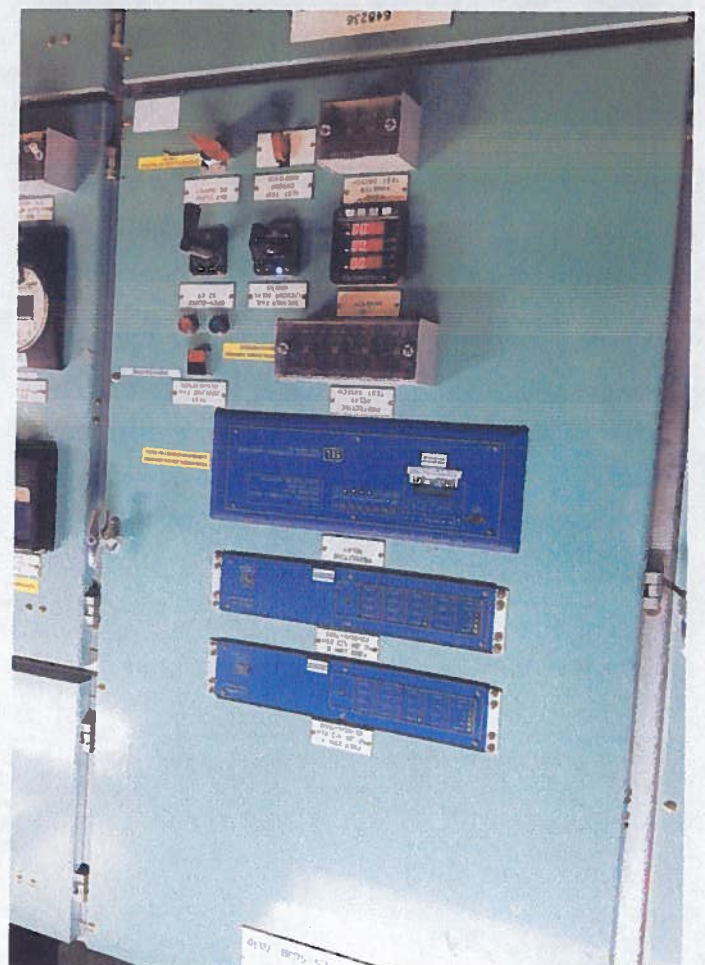
ABB Power Products Medium Voltage Service
2300 Mechanicville Road
Florence, South Carolina 29501

Revision: 001
Date: 05/11/2015

(b) (7)(D)



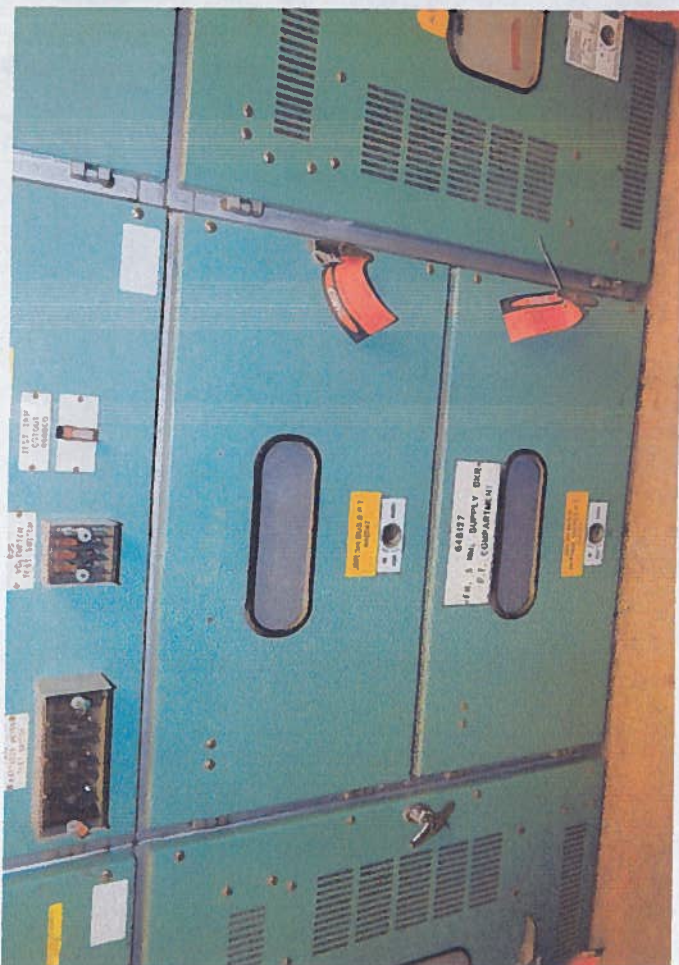


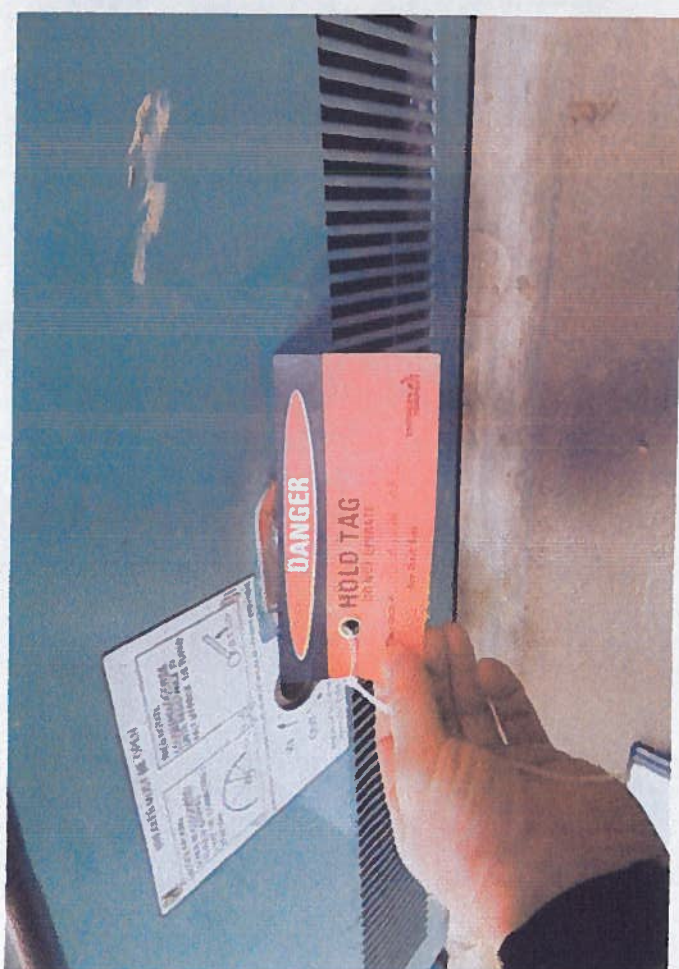
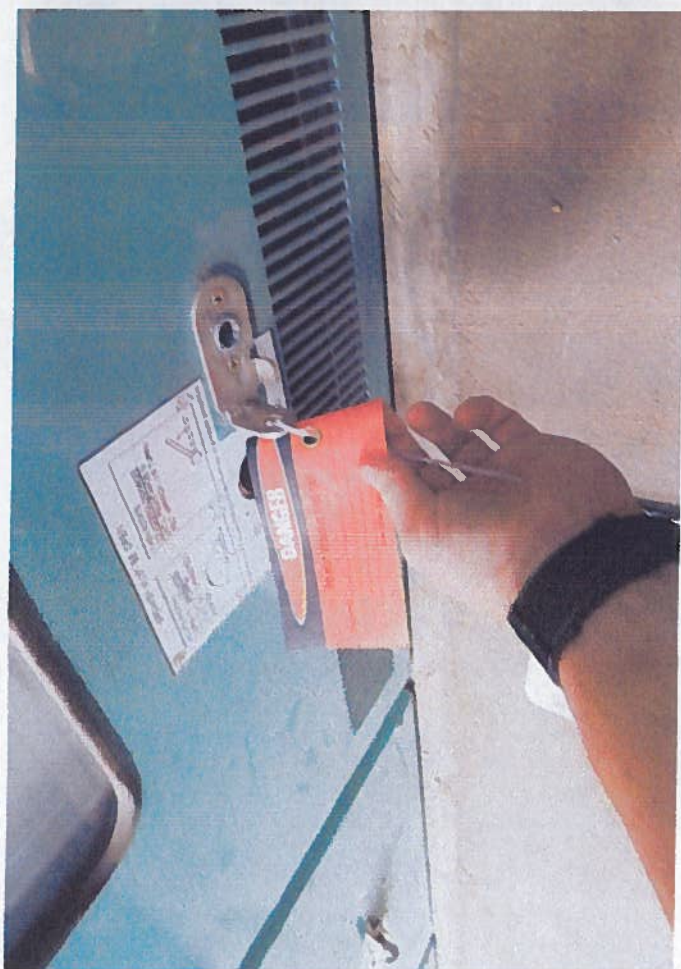




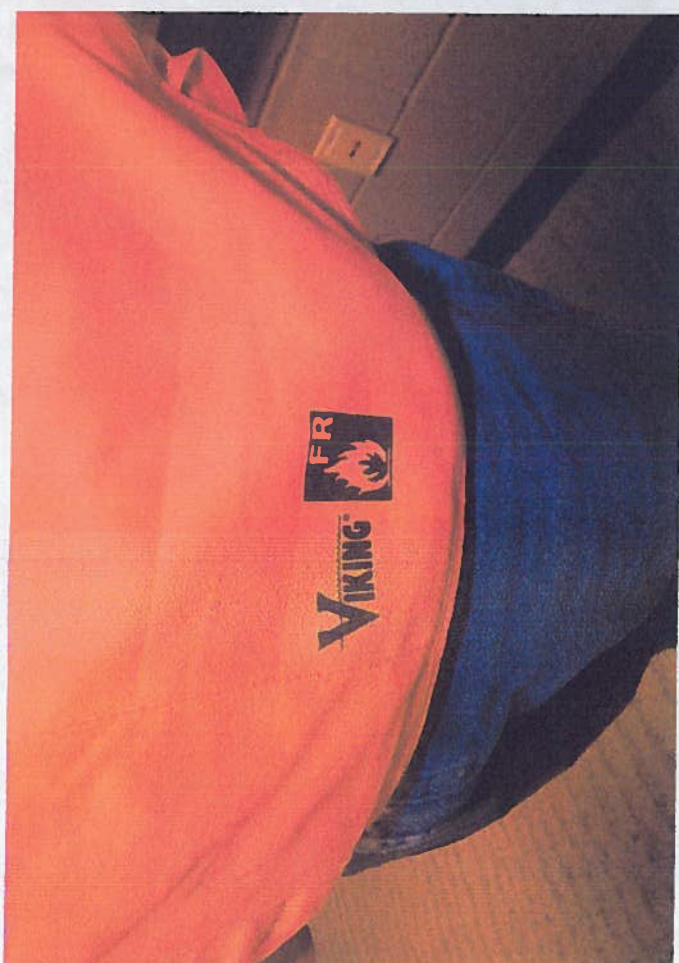














13:30 Front desk / Gate

10/27/15

ask for Jimmy Edwards a Plant Manager

Kevin Johnson

Corporate Safety
Generation Safety & Health Coordinator
- Northern Plant

Suzanne Smith

Safety + Health Advisor
Bowen / April 2015

Boenda Sukuland

Confidence + Support Mgr
Bowen 1 year

Contractor

ABB Folks Notified
of the incident

Brandon Southland

Steven Creekman
Regional CR

720-910-2028

Unit 4 JBR

> Scrubber Injection

> Ground level

1 person

{ Brandon Dillard
Plant MGR

unit 4 Planned outage

{

(b) (7)(D)

x

x

LOTO Procedure

Coordinate with

Why live

What is scope of work

Log Book

Coordinate with

Name of Individual Injured

(b) (7)(D)

3 Georgia Power rescued the man
from the fire truck

Talk with the people involved in the

10/26/15 08:30 on site

Front Gate:

Kenn Johnson

Suzanne Smith

Mark Bell Field Service HSE ABB

Steven Keeselmer Myr Tech Services ABB

ABB, INC.

2300 Mechanicsville Road Florence SC, 29501
PH

Nor Union

2 ABB Employees

2nd (b) (7)(D)

(b) (7)(D)

(b) (7)(D)

Startup + Commissioning Switch Gear

(b) (7)(D)

→

Working on Cable in 1 + 1A Modifying the Bus

4160

Safety Briefing

Alarm Test 12 Noon

Camson PPE
Steel Toe Boots

1 + 1A Cat 2

Chance Question

(b) (7)(D)

of 5 / JBLW
w/ al 84

JBR Building

Electrical for
SCK / Red

Red - Multiple pieces

CP Protection for Racking

JBR Buldm 11000 Am

Cabinet Flash occurred in

JBR 3/4 4160V BAB B

Frame 5

EQ. NO. ES ~~ES~~ SGTB-7050

3' 7"

4' 5"

5' 8"

(b) (7)(D)

equipment near
Flash Bus

working from
middle cabinet

JBR. 3/4 4160V BAB B
Frame 1

EQ NO ES SGTB-7010

3rd Cabinet 701A

ABB

9N

IVALCS01044B01

Produced 9/2006

IEEE C37.202

max 4.76 kV 60 Hz

main Bus 3500 A

mem 77 kA fault time 50 kA

PF withstand 19 kV for 60 kV

Customer # 5051777

Frame 701 B Has
6P Tag

System KDE 364
Equipment JBR 3+4 Buo H
Feeder Branch 648828
Control JBR 028

Controls
Jeff McAlister
15P

Link #

Ralph Granger
17

1 Line on side

Not Purchase order B Breacher to be repaired

Drawing Log
S 81327 C

Southern Co.

unit 3-4

with

11:55

- Supplemental Sign on Roster

10/26

-

10/28

signed on
Not off

signed on
Not off

10/26/15

Limits 4 | 15 / 10/26/03

Clearance 770-550-2837

Subclearance

Ralph Orange Maintenance Specialists

Copy of Passport

(b) (7)(D)

modify 3000 Amp Bar for spare BASS

Has a Contact Probe

Fluke 77

(b) (7)(D)

(b) (7)(D)

Scope
modify the bus Bay
frame 1 + 1A

Georgia power locked hazardous energy
monday

Helper (b) (7)(D)

was unseated 2nd one
working on the bus

(b) (7)(D) was working on 3rd

3rd Cabinet was open / was closed after

check for Absence

Checked with the voltage

Grounds hung for Abb Techs
Georgia Power hung them
Change the ~~bus~~ BUS

Electrical Engineer 2 Cuba EIT Test

ABB SCADA Systems
work medium voltage

ARC Flash Injury

Hard Heat

Softly Glasses

Steel Toe

Gloves / Leather Gloves

avoiding pinch points

Leather + High Voltage

Wear FR's

Pavel didn't say why was

Skin of hands
this was dark

4160 V

Cables were hot
12/8/15

12/8/15 discussion

stated that frame 14 was still live during walk down
of clearance - had GP shut off power -

Post for who did it.

Trace in
- 150
150 - 1500 V
WTF for
160
12:30

in JBR Building

Kenn Johnson when requested for interview of an 6' ee in
the JBR Building says No at Front Gate

CSTO Reply - No @ accident location -

known and for 30 minute break - - Given from 12:45 - 13:15

for internal discussions - also request union rep

- Back on site @ 13:10 -

13:15 No one @ Front office Gate

13:40 (b) (7)(C)

13:55 Call Stephen Washburn

13:55 refused to allow questioning in the Area

14:20 awaiting the union rep

Note {
PPE
Tools
Verification
LOTO Control

ABB INC

AMPROBE Tic Trace

SN 99280013 C Issued to (b) (7)(D) Injured

TIC 300 HV

LOW 30 - 1500 VAC

HIGH 1500 - 122 kVAC

was located in the Company truck @ the hotel

Grabbing the Union Official

14:35 Inspection will proceed via Kevin

14:37 Want written Request for Documents

~~Union~~
UNION

(b) (7)(D)

Shop Stewart
SD

(b) (7)(D)

TREC 84

(b) (7)(D)

Bus B in JBR Electrical Bldg
Tagged in the Control Room

Both Electronic + Physical

Electronic held @ Control Level

(b) (7)(D)

JBL 3+4

units

FGD 3+4

Feeder BAS H - New

been under clearance for a while

and to be line
core line supply

Frame 3 Main Supply to BAS - Transformer
Frame 5 ~~is~~ Alternate Supply
from other transformer

Oct 29, 2015

(b) (7)(D)

Arc Flash training None
Training

→ Arc Flash - None

→ ~~Shock~~ Shock - CPR

→ Georgia Power Lockout training
None

→ Showed ^{1 piece of paper} Ralph Grange
R6

→ 'did not say could he backfed

→ John Brodie

(b) (7)(D)

* Change the Configuration of bus bar
we were taking things apart
Starting to mount insulators

need help with moving Ground 70lbs
could get up 2 people

were only installing the BUS Bar

Equipment

Had Voltage rated Gloves / Leather Gloves

(b) (7)(D)

(b) (7)(D)

checked for the absence of voltage
w/ from Florence SC

→ Lockout

did not sign off on the Tag for release

signed out to the sheet — first day of work

(b) (7)(D)

Contact info

(b) (7)(D)

Steps

9/25
union screw

(b) (7)(D)

Step 14

#14 above — upper Tag on DC Supply
#15 Rack + Place Tag Tag only

#16 108 TRG DC

not expected
of accepting a lock

5/11/11
#17 Rack + Tag 108

#18 Switch + Close DC 456
648056

#19 Rack Tag Bottom Cabinet

#20 648056 upper Cabinet Tag

#21 Rack + Tag lower Cabinet

#22 6480552 upper Switch + Tag

#23 lower Rack + Tag

#24 648298 Line TransConn Breaker
Tag @ Switch

#25 Rack + Tag
648295

#26 / DC Close Supply 648828
Power to open + close breaker
Tag @ Switch

#27 648828
Back + Tag

#28 Back + Tag 648997

#29 648247 Potential transformer } same photo
#30 648127 Potential transformer }

Line up to take bus 000

#1 Line Cross trip to D
U160V Lining up to kill the Bus
hit target
- 2 Clearances on screen

#2 Confirm Breaker open on SCADA System
then Electronic Tag

#3 Close to B
480V 2602 - Clearance

#4 Tag Electronically
Not Cleared
MCC Bus B

#5 open the Breaker 648928
Tag Electron

#7 JBR
open BH feeder Breaker off B Bus
648 828

#5 Bus B alternate Supply Breaker
3 Clearances

648108

02

4-15-10-26-02

04

05

#9 648236 Normal Supply

26-02 (Top)
D Bus

#10 648456
Limestone Feeder Breaker

#11 Confirm 444 is open
648444

Alternate Supply

4-09-10-20-02 0009

4-15-10-26-02

#12 648552

open + Tag

1 - Clearance

#13 Bus Maintenance Switch
Bus B

1 Clearance

#14

4-15-10

26-03

Limestone Building Airway

#1 26-02

26-03
Dorale

6664

Limestone Electrical
Blot

#2 Tay Bus for Raskin the trucker

#3

#4 for Raskin's

#5 thru Arnold

#6 @ Limestone
666664

1/29/15

10:30

ABB, Inc

Interview with Safety + Tech

Scope of work

Modifying Bus in Cabinets 1 + 1A

2 employees -
Electrical

- ① Non Licensed Electricians
- ② ABB, Inc Policy Both Qualified to
Electrical Standards Considered Qualified
- ③ Power Plant Qualified
ABB Policy Yes

Electrical Standards
demonstrated
Safety training /

Documentation will
Agenda

NFPA 70E LOTO

> Zee's training for LOTO 6P
training

ABB Policy Follow the Policy most stringent
Chose,

Safety - was using Georgia Power procedure
signed off on it

How would verify the absence of voltage
transd to check live dead live
^{safely} Their Arc Flash -

Their testing Procedure -
Verify Been Grounded

Says Rated Cal Shut -

PPE in Cabinet No Voltage
workhats, FR Clothing, Safety Shoes, Leather Gloves
Hart, eye protection,
Class Zero - work

Supposed to wear Cat 2 when Testing

did anyone?

only had / 02 + 03

Procedure for clearance release

Go to Plant manager
> No idea how to clear

→ GP will have to sign supplemental form

2 use Tic Trace, to verify
only good for AC

↳ What's Co Policy for Verifying LOTO?
→ do a walkdown with the Custome

Qualified - for power Plants
training Before or after -
Can't answer the Questions
give training required by OSHA

LOTO - Verify
soph training done by Mike Wilson
Classroom

Sat in on the training

Written test Witnessed

Here they demonstrated Skills
Test

↳ will provide
everyone has a Fluke meter with them

Safety, Cannot know what as check
Policy

for 2 straight across the board Shut parts vest

Faceshield / Goggles

don't work on live energy

will provide across the board Policy

Should have necessary for working on deenergized equipment

Co policy to verify

How do you check in the field

ABB Policy for Verifying the absence of Voltage
No PPE Policy

PPE Requirements

Separate PPE Instructions

Don't know for 4160 V

Do audits in the field
12 per year

How Groups

Medium / High / Trans / Generation Service

Had High + Low Voltage

safety

> know if they doing it wrong
won't answer @ this time

College degree in electrical Engineering
Technology - no specializations
Grad 89 Murray State U
Kentucky

Worked 8 years for ABB

Safety training on a yearly basis

They issue what's in the Global Policy

Work in the office
Scheduler

Manager of Tech Services

36

Medium Voltage Switch Gear
ABB 600 - 69 kV

Field Complexity of the Job determines
the size

Cover the entire

all 36 techs personal

21 techs

all considered equally field technicians
evaluate field safety 2 years old

HSE Reported.

(b) (7)(D)

(b) (7)(D)

act of terrorism

note
on site
end of Interview

(b) (7)(D)

(b) (7)(D)

Non Covered
Trustee Controls Hourly

(b) (7)(D)

(b) (7)(D)

(b) (7)(D)

(b) (7)(D)

(b) (7)(D)

1 ~~hour~~ (b) (7)(D)

Fire / EMT First Response
Call - possible fire 1 man down
outside of the building

(b) (7)(D)

(b) (7)(D)

(b) (7)(D)

→ (b) (7)(D)

(b) (7)(D)

(b) (7)(D)

(b) (7)(D)

(b) (7)(D)

February

(b) (7)(D)

Coordinate Work / outside Contractor \leftrightarrow Some electrical
modify 1 - 14 Bus
difference in 1 x 14
Frame 1

PGD environmental 1 A Serviceable for future
1 Feed limestone feed across the way
Transformer - no
5-6 deep

ABB, know ABB

Training - Annually 0200 Steps
expectations of the request

T86 - once its isolated
another / part of 0200?
Discretion

(b) (7)(D)

Coal Equipment of
ed High / Technical Electric
Licensed
No longer - Qualified

Bus would Bus
leads too top side of Breaker
at times taking that Bus

1

Color blind

→ Contractors
Separate procedure
Separate / Part of the training
would be experts / orange

on the roster no person who has the Grounds
orange sheet
Sheets / orange

Clearance desks

PPE - aware in program - not aware
isolation points are adequate / Backline
Gloves to hang Grounds

Jeffrey McElisber

2005 - Electrician / 99

Came back to town -

- 35 years Post voter ID Ryan

(b) (7)(D)

Lawman 10

80's / 90's

2 years least

(b) (7)(D)

Sabers weekend of Halloween
Actually

Everything by me

(b) (7)(D)

(b) (7)(D)

0200 Hows that Classroom train
Safety advisor / team leaders / operators
→ Susan Smith

normal procedure -

variances

OSHA Standards / Sections /

Authorized or Affected

Take out the Books / operation

100 e's &

TP6 - Grounds / How do you install them

who / Electricians

Journeys men

Separate / Lists
Grievances

600 volts

Subcontractor / Afford

Go by one GP Procedure / Grounds their choice

Coordinated

(b) (7)(D)

- Directly report too you

Safety video / discussed w officer

location where Chattahoochee Hydro

Verification / ops / elect / Coordinator

Not Required by performing

Georgia Power / Taps Plus

No requirement not written down Penn Living
Dennis Smith

Double Verification is done
anything Charged most recent anecdotal

> Spec not in his scope of work
> was fromme 2 open scope of work
scope of work working on
didn't see written scope of work

Never executed a Clearance/
Audit - were been on an audit

Karen Johnson

Terminology / Gaps

[Annual Clearance Review]
Reviewed for Requirement
Terms

Initial -

Base 1 No Incident Review

ABB, Inc. & own review,
Asked for Report / No /

Feed Back / Gaps their side

PPE / Flagging Area working /
List of things

Clearances or Tagout

work Area / outside his work Area

No Clear &

→ Grounding 2 Grounding

Mechanic Procedure / Sign on as Individual

Plant Smith 0200 Procedure / Instructor

Sub Contractor

Taught 0200

For Co Site Specific Instructions

Changes Drable Verification Steps
Clearance Request Form,

(b) (7)(D)

Q?

Q - TFG
Differences }

210

→ Problems
→ Sub Contractors

✓ Clearance Tags
Accounts

✓ For Crews / Personnel / Sub Contractors

✓ Clearance of - did you review - How often?

Time Frame - When Remove Replace Someone
who visit on the site / even works there

? Effective Program How?
→ Please describe

(14)

Discipline? When Where

How are Procedures?

How is looking at a light verification?
looks @ Procedure.

- TFG

Georgia Power

5:30 minute

11/4/15

9:00 hour - 9:00

Ralph Cranger

> (b) (7)(D)

James O'H

9:30 Interview with (b) (7)(D)

Salamec

(b) (7)(D)

to follow

(b) (7)(D)

Ralph Granger

1 ~~2~~ Main Specialist Senior
Salameh

Duties with outside

Switch Gear
Breakers
MCC

Coordinate all Clearances with outside Contractor
Coordinate + Lead 1 Clearances

Frames 1 + 1A Reconfigure

ABB was installing the Bus Bar
they provided all their Bus work / Copper Bars

→ Had Conversation early on

Scheduled from ABB,
Done a couple months back

Coordinated activities with (b) (7)(D)

Job / Bus

Clearance Roster in hand
went over the Clearance Roster
in hand / with Geo / Foster

Walked down through there / Foster had 1 line

- Was 2 Clearances involved

→ Job to monitor the work

last Contact with (b) (7)(D)

Tuesday - disassembled 1 disassembles
Geo 1A

He needed a brace/hole pattern

~~He~~

Clearance needed to inspect the Corner over the
Bus Bar

The incident occurred 10-15 minutes later

- No idea why he needed to enter Cabinet 5

→ The interior of 1 + 1A would look
similar after completion

(b) (7)(D)

(b) (7)(D)

(b) (7)(D)

- union
Steward

Clearance - (b) (7)(D) puts Clearance Request
(b) (7)(D) Reviews 1 line for power sources
Generate Clearances

Then walked down 2 people on execution
(b) (7)(D) also executed

Team effort to put taps on
(b) (7)(D) AED Rack Breakers

> Verification → Not an operator req

- electrician

DCS has 0 Voltage

Procedure is for work occurring
Job of worker to verify absence of voltage
Man/walk/verify

Did not talk with ABB
deal with requester

(b) (7)(D)

signs on the roster

Supplemental is taken by (b) (7)(D)

Suzanne Smith
Kevin Johnson

Safety
Adviser

(b) (7)(D)

12/17/2015

Meet

(b) (7)(D)

i wants to be there during union interviews
managers want to be there during union interviews

(b) (7)(D)

(b) (7)(D)

(b) (7)(D)

(b) (7)(D)

(b) (7)(D)

(b) (7)(D)

(b) (7)(D)

(b) (7)(D)

(b) (7)(D)

(b) (7)(D)

(b) (7)(D) → Q+A Review of Employee's
wants to know scope of
Scope of Questions

18th

19th

Confirm Q

Document Request

GP

- 1) Copy of 0200 Program
- 2) Copy of Clearances a
b
c
d
e
- 3) Copy of Roster / Supp
- 4) one line for Bus 6 JCR
- 5) Copy of Contract plus Safety Supplement
- 6) Copy of training done for ABB employees
- 7) Copy of Audits done in 2 years
- 8) 3rd 2q²
- 9) Copy of work order for ABB
- 10) training Supplement for
- 11) Policy for dealing for absence of voltage / Bus 6 / MAF
- 12) What fault current in Equip designed for / what trip times

ABB INC

- 1) Safety Program
- 2) PPE Program
- 3) PPE Policy of issuance to employees
- 4) Lockout Roster - Supplement for GP
- 5) Training records - Complete
- 6) Copy of disciplinary policy / any warnings given past 2 years
- 7) Copy of Contract ABB Scope of Work
- 8) 3rd copy

Ralph Granger
Jeff McMiller

(b) (7)(D)

John Edwards
III

Managers

will say want Sign/

Budget - Reserve the Sworn interviews

Talk with (b) (7)(D)

mutually agreeable date

Call her Scheduled

Whose → Scheduling Court Reporter

→ Regional take care

→

Differently last Inspection